Premier Reticles, Ltd.
920 Breckinridge Lane
Winchester, VA 22601

Information You Requested

1999 PRICE LIST

PREMIER RETICLES, LTD.

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(check for updated info)

Our 54th year supplying scope manufacturers, hunters and competitive shooters worldwide with quality reticles and scope conversions.

For more info on Leupold products-
www.leupold.com

PRICES EFFECTIVE FEBRUARY 1, 1999
Prices and specifications subject to change without notice.

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1999 RETICLE PRICES

All reticles are available in black only. Reticle No.10, USMC is available with luminous posts. Reticles 1, 1a, 2, 4, 4a, 4e, 5, 7, 9 or 10 cannot be altered or have dots added. Extra lines may be added to all these reticles...except number 10.

Reticle changes are not available in Leupold LPS scopes.

Reticle changes are not available in Siebert or Ackerman power boosted scopes.

Only reticles 3, 5 (medium), 6, 10, 10a and multiple dots are available in Mark 4 scopes.. The STD USMC mil-dot reticle is ***available only*** in new Mark 4 16X scopes purchased from Premier Reticles. These are not available to be installed in customer supplied 16X scopes.

Only reticles 2, 3, 5 (medium) and 6 are available in Extended Eye Relief scopes. Not available in red dot scopes.

Deduct $18 from reticle prices shown for reticles 1 through 10a or 15% off multiple dot prices shown when purchased with a new Leupold scope.

Reticle No. 1 (German Post)..... $48
Reticle No. 2 (Tapered Post with Crosshair)..... $48
Reticle No. 3 (Single Dot in Custom Size)..... $48
Reticle No. 3 in .0017", .0024", .003" or .0067" .....standard diameters..... $41
Reticle No. 4 (3PCH)..... $48
Reticle No. 5 (Duplex)..... $33
Reticle No. 5 (Duplex with diamond dot)..... $41
Diamond dot added to duplex in new scope..... $15
Reticle No. 6 (Crosshair, Target, Fine or Medium)..... $41
Reticle No. 7 (CPC)..... $41
Reticle No. 9 (Leupold Dot)..... $41
Reticle No. 10 (STD Mil-Dot)..... $118
Reticle No. 10 (USMC Mil-dot ,w/Luminous posts)..... $143
Reticle No. 10a (Modified Mil-dot)..... $135
Range estimating Duplex reticle w/ one extra line..... $48
Reticles 1, 2, 3, 4, 4a, 4e, 6, 7, or 9 w/ one extra line..... $60
Extra Lines added to range estimating reticles..... $12

Reticles installed in top third of field of view in 36X scopes (price includes new target dot or target crosshair)..... $72
36X power boost to 40X without reticle change..... $65
36X power boost to 40X w/ target dot or crosshair..... $85
Change power up or down on previously boosted power conversion..... $40

MULTIPLE DOT PRICES

Two dots..... $67
Three dots..... $83
Four dots..... $96
Five dots..... $106
Six dots $111
Seven dots..... $117
Eight dots..... $122
Nine dots..... $128
Ten dots..... $132
Each additional dot after the 10th dot..... $4
Each extra line added to multiple dots..... $12
Each additional dot or line added to reticles installed in power boosts when purchased with the new scope..... $12

SCOPE ACCESSORY PRICES

(See pages 22-23 for descriptions of accessories)

52343 2.5" 40mm AO lens shade, gloss.....*NEW*...$17
52344 2.5" 40mm AO lens shade, matte.....*NEW*...$18
52345 2.5" 40mm AO lens shade, silver.....*NEW*...$18
52346 4" 40mm AO lens shade, gloss.....*NEW*...$19
52347 4" 40mm AO lens shade, matte.....*NEW*...$20
52348 4" 40mm AO lens shade, silver.....*NEW*...$20
52349 2.5" 50mm lens shade, gloss.....*NEW*...$22
52350 2.5" 50mm lens shade, matte.....*NEW*...$23
52351 2.5" 50mm lens shade, silver.....*NEW*...$23
52352 4" 50mm lens shade, gloss.....*NEW*...$24
52353 4" 50mm lens shade, matte.....*NEW*...$25
52354 4" 50mm lens shade, silver.....*NEW*...$25
52292 Anti-Reflection Device 40mm only.....*NEW*...$14
52395 Torx Screw Kit.....*NEW*...$30
52296 Scopesmith Mounting Tool.....*NEW*...$15.95
52100 Scopesmith Lens Cleaning System.....*NEW*...$9.95
52292 Scopesmith ARD, 40mm Non-AO.....*NEW*...$12.95
42420 2.5" Mark 4 matte lens shade..... $17
31682 50 foot adapter for 40mm AO scopes..... $32
48762 Leupold Ring Wrench (1" and 30mm)..... $9.95
42284 Packer Tripod..... $54
44567 Compact Tripod..... $96
BT-2L Mark 4 rings 65 in-lb torque wrench..... $65
SW1 Field Targ. Side Wheel & decal for SF scopes..... $40
CFL 50 foot adapter for 50mm side focus scopes..... $40
Padded case for 25X spotting scope (Black or O.D.)..... $55.95
Padded case for 12X-40X spotting scope (Black or O.D.).. $69.95
Vinyl lens covers set each (3 sets/$6.00).....*NEW*...$3
Butler Creek Lens Covers purchased with new scope..... $13
Butler Creek Flip-up Lens Covers..... $14
Butler Creek Sunshields #7 #8 or #9..... $9.95
Butler Creek Sunshield #10 or #11..... $16.75

Target Style Turrets

Elevation & windage target turret added to new scope you are purchasing from us $58
Elevation & windage target turrets installed on a scope you send to us $67
One target turret added to new scope you purchase from us $32
One target turret added to your scope you send in $36
Extra set of loose, straight target knobs w/covers $20
Extra set of loose, tapered knobs w/o covers $14
Target turret dust cover replacement, (specify gloss, matte or silver) each $5.50
Target turret set screw replacement kit (includes six hardened steel set screws & hex key) $1.50

Vari X-III Style Coin Click Adjustments

Elevation & windage coin click adjustments added to SF Target, Vari X-II, compact, EER or fixed power scopes $25
One coin click adjustment $15
Coin adjustment dust cover replacement. Specify finish $1

Custom Computer Printout

Custom printout run to your specifications $10
Printout when ordered with new scope or when multiple dot systems are installed $5
Each additional printout $4

Readjust Focus/Parallax

Adjust focus/parallax only on your scope you send to us ... $20
If reset on your scope during a reticle change $5
If reset on new scope you are purchasing ..... No Charge

RING AND RINGMOUNT PRICES

STD 1 inch Rings $16
STD 1inch Extension Rings $22
STD 30mm Rings $25
STD 30mm Extension Rings $35
STD Handgun Mounts with Rings $29
Dual Dovetail 1 inch Rings $16
Dual Dovetail 30mm Rings $25
Quick Release 1 inch Rings $16
Quick Release 1 inch Extension Rings $22
Quick Release 30mm Rings $25
Quick Release 30mm Extension Rings $35
Mark 4 1", 30mm & Flat Top style 1" & 30mm Rings .. $101
QRW 1 inch Rings $37
QRW 30mm Rings $47
RUGER 1 inch RingMount Set $40
SAKO 1 inch RingMount Set $40
SAKO 30mm RingMount Set $49
WEAVER Style 1" Rings to fit Weaver Style Bases $41
.22 Rimfire RingMounts $30
BADGER Max 50 Medium (.823") 30mm Rings $129
BADGER 30mm High (1.125") Mark 4 type Rings $118

BASE PRICES

STD 1 Piece Base Set $12
STD 2 Piece Base Set $12
STD 1 Piece, Long Range 1/4 Degree Base ..... *NEW*...$16
STD Gunmaker Windage Base, 1 Each $9
STD Gunmaker Dovetail Base, 1 Each $9
Quick Release 1 Piece Base Set $35
Quick Release 2 Piece Base Set $35
QR Gunmaker 2 Piece Base Set $35
MARK 4 One or Two Piece Base Set $80
QRW 2 Piece Base Set $20

PREMIER VARIABLE POWER CONVERSIONS

We offer the following power conversions in the finishes and objective diameters shown.

Second focal plane reticles

The option of a second focal plane, non-magnifying reticle is offered in 1999 for the 1 inch tube power boosts.

Reticles 1, 2, 4, 5, 6, 7, 9 and 10 reticles are available ONLY in second focal plane scopes.

Second focal plane reticle size and multiple dot/line spacing will be the same only at one power setting.

Side focus power boosts are available ***ONLY*** with second focal plane, non-magnifying reticles.

First focal plane reticles...1" tubes only

First focal plane reticles are available *ONLY* with .040 moa crosshair (#6) OR 1/4 minute or larger dot reticle (#3). Multiple dot/line reticles including the modified mil-dot are available. Other styles including target style crosshairs or dots smaller than 1/4 are not available.

First focal plane dot/line size and multiple dot/line spacing will be the same regardless of power setting. The appearance of the reticle will seem to increase in size/spacing as the power is increased but because the image is being magnified at the same ratio the subtension of the reticle is constant regardless of power and vice versa.

The focusing capability, click value of turrets or internal adjustment range of ***ALL*** power boosted scopes is not changed from the specifications shown for non-boosted scopes.

All adjustable objective (AO) scopes will focus from just under 50 yards to infinity. If the scope has a 40mm objective and is being used for Smallbore Silhouette specify when ordering. Focus can be changed so the scope will focus from 38 meters to infinity for no additional charge. 40mm EFR scopes focus from 10 meters to infinity without modification. Side Focus scope have the following focus ranges: 51605 and 52078 45yds to infinity; 51606 35yds to infinity.

50mm AO scopes with 1 inch tubes may be modified to focus from 38 meters to about 300 meters for smallbore silhouette if specified. Side focus scope conversions listed showing a "CF" designation feature a modification to the focus adjustment which allows increased focus range. 51605 and 52078 CF scopes focus 22yds to infinity. or 17yds to 75yds. 51606 CF scopes focus 17yds to infinity. or 14yds to 75yds. Please specify desired range.

The focus range can be extended by using the optional **Close Focus Lens p/n CFL...add $35**. 51605 and 52078 CF additional range is 9.5yds to 15.5yds and 51606 CF is 8yds to 15.5yds when the Close Focus lens is flipped down and closed in place.

Scopes listed with target adjustments will have both windage and elevation straight knobs with dust covers. EFR conversions include extra tapered knobs.

Parts numbers 49801, 51086, 51605, 52078 and 51606 have factory installed target adjustments. Either or both target adjustments may be removed for no charge and replaced with coin click adjustments.

EFR Target & 20X-50X 40mm Target scopes will include a 2.5" sunshade at the price shown. 50mm Side Focus scopes include a 4" sunshade. All others do not include sunshades but are available at extra cost. All power conversions will include a set of vinyl lens covers at the prices shown.

40mm Objective Conversions

Gloss Finish, Coin Adjustments 45263
14.5X-35X 40mm AO p/n 4526335 ..... $593
18X-40X 40mm AO p/n 4526340 ..... $593

Matte Finish, Coin Adjustments 46173
14.5X-35X 40mm AO p/n 4617335 ..... $605
18X-40X 40mm AO p/n 4617340 ..... $605

Silver, Coin Adjustments 50201
14.5X-35X 40mm AO p/n 5020135 ..... $605
18X-40X 40mm AO p/n 5020140 ..... $605

Silver Finish, Target Adjustments 50201
14.5X-35X 40mm AO p/n 5020135STG $663
18X-40X 40mm AO p/n 5020140STG $663

Matte Finish, Target Adjustments, w/sunshade 49801
14.5X-35X 40mm EFR p/n 4980135 ..... $645
18X-40X 40mm EFR p/n 4980140 ..... $645

Matte Finish, Coin Adjustments 51082
20X-50X 40mm AO p/n 5108250 ..... $624

Matte Finish, Target Adjustments 51086
20X-50X 40mm AO p/n 5108650 ..... $654

50mm Objective Conversions

Matte Finish, Coin Adjustments 49025
14.5X-35X 50mm AO p/n 4902535 ..... $660
18X-40X 50mm AO p/n 4902540 ..... $660

Matte Finish, Target Adjustments, 1" Tube 49025
14.5X-35X 50mm AO p/n 4902535MTG $718
18X-40X 50mm AO p/n 4902540MTG $718

Matte Finish, Target Adjustments, 30mm Tube 51605
14.5X-35X 50mm Side focus, L.R. p/n 5160535SF $776
18X-40X 50mm Side focus, L.R. p/n 5160540SF $776
14.5X-35X 50mm SF LR CF p/n 5160535SFCF $801
18X-40X 50mm SF LR CF p/n 5160540SFCF $801

Silver Finish, Target Adjustments, 30mm Tube 52078
14.5X-35X 50mm SF LR p/n 5207835SF $776
18X-40X 50mm SF LR p/n 5207840SF $776
14.5X-35X 50mm SF LR CF p/n 5207835SFCF $801
18X-40X 50mm SF LR CF p/n 5207840SFCF $801

Matte Finish, Target Adjustments, 30mm Tube 51606
20X-50X 50mm SF LR p/n 5160650SF $827
20X-50X 50mm SF LR CF p/n 5160650SFCF $852

1999 LEUPOLD SCOPES

LEUPOLD PREMIER SCOPES (LPS)

The newest optical and mechanical design for Leupold. Features include -World's finest optical quality - Diamond Coat scratch resistant multicoating, toughest and a first in the industry - 99.65% light transmission per lens surface - Four inches of eye relief at all magnifications - 4X zoom ratio - Lowest glare of any scope tested - Low profile finger adjustments that rezero by pulling up and pushing down - Fast focus eyepiece with rubber eyeguard - Easy-to-grip rubber surfaces for objective focus, eye focus and power adjustment ,30mm one piece rugged maintube - Small, compact American-style format - Sold with snug-fitting lens caps.

50600 LPS 1.5X6 42mm Duplex, Satin $827
50601 LPS 3.5X14 52mm Duplex, Satin $879
51354 LPS 3.5X14 52mm Mil-dot reticle ..... *NEW*...$954

VARI X-III

Our best selling Leupold model. Most Vari X-III scopes have One piece 1 inch main tubes - Multi-Coat 4 lenses - Computer designed lens systems that offer a flat, distortion free image to the edges of the field of view - Smallest amount of track-out of any variable - 1/4 minute coin click adjustments - All scopes except the 1.5X5, 3.5X10 SF M1/M3, 4.5X14 50mm SF Tact., 6.5X20 and 8.5X25 include a 200 to 600 yard range estimating scale on the power ring - Ample eye relief for magnum rifles.

The long range scopes have up to double the internal adjustment of the same power 1" tube models. All have 30mm main tubes and target turrets except M1 and M3 3.5X10 with Mark 4 style turrets. Calibrated range dials for the M3 3.5X10 side focus scope are the same as described on page 6.

See page 7 for prices of tactical scopes with mil-dot reticles and Butler Creek Lens covers.

45242 1.5X5 20mm Duplex $342
45245 1.5X5 20mm Duplex Matte $354
49209 1.75X6 32mm E Duplex Matte $366
45248 2.5X8 36mm Duplex $365
45251 2.5X8 36mm Duplex Matte $377
47874 2.5X8 36mm Duplex Silver $377
47874 2.5X8 36mm mil-dot Matte $437
45254 3.5X10 40mm Duplex $376
45257 3.5X10 40mm Duplex Matte $388
46412 3.5X10 40mm Duplex Silver $388
45266 3.5X10 40mm Duplex Tactical $432
45806 3.5X10 50mm Duplex $431
45158 3.5X10 50mm Duplex Matte $443
48501 3.5X10 50mm Duplex Silver $443
49200 4.5X14 40mm AO Fine Duplex $420
47862 4.5X14 40mm AO Fine Duplex Matte $432
49207 4.5X14 40mm AO Tactical Fine Duplex $476
47867 4.5X14 50mm AO Fine Duplex Matte $487
45263 6.5X20 40mm AO Fine Duplex $443
46173 6.5X20 40mm AO Fine Duplex Matte $455
50201 6.5X20 40mm AO Fine Duplex Silver $455
50157 6.5X20 40mm AO Varmint Dot Matte $500
49801 6.5X20 40mm EFR Targ. F. Duplex Matte $495
49025 6.5X20 50mm AO Fine Duplex Matte $510
51082 8.5X25 40mm AO Fine Duplex Matte $474
51086 8.5X25 40mm AO Fine Duplex Target Matte $504
51182 3.5X10 40mm M3 S.F. Duplex $621
51182 3.5X10 40mm M3 S.F. Mil-dot $681
52218 3.5X10 40mm M1 SF Duplex ..... NEW..$621
52218 3.5X10 40mm M1 SF Mil-dot ..... NEW..$681
51604 4.5X14 50mm Tactical S.F. F. Duplex $581
51604 4.5X14 50mm Tact. S.F. Mil-dot $641
52086 4.5X14 50mm Targ. SF F. Dup. Silver..NEW..$567
51605 6.5X20 50mm Targ. S.F. F. Duplex $626
51605 6.5X20 50mm S.F. Mil-dot $686
52078 6.5X20 50mm Targ. SF F. Dup. Silver..NEW..$626
51606 8.5X25 50mm Targ. S.F. F. Duplex $677

Premier Silhouette Conversions to Vari X-III Scopes

Silhouette Specials are used for all types of rifle silhouette and by many for pistol silhouette. Both scopes include a traditional 5/8 minute at 20X dot in the 6.5X20 scope or a 1/2 minute at 24X dot in the 8.5X25 scope. Both scopes have target turrets and 2.5" long sunshades.

The 6.5X20 EFR scope will focus from 10 meters to infinity. If you order the 8.5X25 scope and will use it for smallbore silhouette, please specify, the focus may be altered to allow you to focus from 38 meters to infinity.

6.5X20 40mm EFR Target, Silhouette Special with .0067 Dot p/n 49801SILH $515
8.5X25 40mm AO Target, Silhouette Special with .0067 Dot p/n 51086SILH $524

VARI X-II SCOPES

Leupold quality at an affordable price that will give a lifetime of service. Fully coated lenses - Waterproof - Versatility of a variable - Friction coin adjustments except for 6X18 Target.The 1X4 and 2X7 matte scopes with heavy duplex are shotgun/muzzleloader scopes and have focus/parallax set at 75 yards. This may be reset to another distance for no charge.

26938	1X4 20mm Duplex	$213
47300	1X4 20mm Heavy Duplex, Matte	$225
16583	2X7 33mm Duplex	$231
47309	2X7 33mm Heavy Duplex, Matte	$243
16597	3X9 40mm Duplex	$233
36766	3X9 40mm Duplex, Matte	$245
46345	3X9 40mm Duplex, Silver	$245
50431	3X9 40mm Tactical Duplex, Matte	$289
50431	3X9 40mm Tactical 3/4 mil-dot, Matte	$349
46353	3X9 50mm Duplex	$277
46359	3X9 50mm Duplex, Matte	$289
51571	4X12 40mm Non AO F. Duplex, Matte	$312
51564	4X12 40mm AO Fine Duplex, Gloss	$321
51618	4X12 40mm AO Fine Duplex, Matte	$333
51570	4X12 40mm AO Fine Duplex, Silver	$333
51618	4X12 40mm AO 3/4 mil-dot, Matte	$393
51564	4X12 40mm AO 3/4 mil-dot, Gloss	$396
49632	6X18 40mm AO Fine Duplex, Matte	$353
49634	6X18 40mm AO Fine Duplex, Silver	$353
50960	6X18 40mm AO F. Duplex, Target, Matte	$383

COMPACT AND RIMFIRE

Short and lightweight a perfect match for a lightweight mountain rifle or .22 caliber rifle. Fully coated lenses - Waterproof - Friction coin adjustments - RF (rimfire) scope has parallax factory set at 60 yards and comes with a fine duplex reticle. All other non-AO compacts have parallax factory set to 150 yards. It maybe reset to any distance you feel more appropriate for no additional charge. Reintroduced in 1999 the 2.5X compact, this time in a matte finish.

52202	**2.5X 20mm Compact, Duplex, Matte...NEW...**	**$168**
41129	4X 28mm RF Compact, Fine Duplex	$206
40400	2X7 28mm Compact, Duplex	$258
36226	3X9 28mm Compact, Duplex	$267
38005	3X9 28mm Compact, Duplex, Matte	$279
45024	3X9 28mm Compact, Duplex, Silver	$279
46402	3X9 33mm Compact EFR, Duplex	$298
46402PIST	3X9 Compact EFR pistol special with elevation target turret and 2 moa dot at 6X..(4"-3" eye relief)	$350

FIXED POWER SCOPES

Scout scopes have 9 inches of eye relief. All scopes, except the 6X42 Tactical with target style turrets and 1/4 minute clicks, have friction coin adjustments. 6X42mm and 12X scopes have Multi-coat 4 lenses. The 12X varmint scope has elevation target turret and a .49 minute target dot reticle.

50140	2.5X 28mm Scout Duplex, Matte	$218
50184	2.5X 28mm Scout Duplex, Silver	$218
45352	4X 33mm Duplex	$208
45376	4X 33mm Duplex, Matte	$220
16541	6X 36mm Duplex	$221
45218	6X 42mm Duplex	$275
46181	6X 42mm Duplex, Matte	$287
50229	6X 42mm AO Tactical Duplex	$352
50229	6X 42mm AO Tactical, 3/4 mil-dot	$412
50229	6X42mm AO Tactical, target crosshair	$375
50229	6X42mm AO Tactical, 3/8 moa target dot	$382
45535	12X AO Fine Duplex, Gloss	$308
45535	12X AO w/target turrets, Fine Duplex, Gloss	$366
45535	12X AO 3/4 mil-dot, Gloss	$368
50158	12X AO Varmint, Dot, Matte	$365

EXTENDED EYE RELIEF SCOPES

Leupold/Gilmore lighted dot scopes in 1X magnification. 1 inch tube has 45 feet and 35mm tubes have 70 feet field of view at 100 yards. 12 position light intensity, 2 tone black matte/silver finish 1/3 minute clicks. Includes lens covers, mounting rings for Weaver type bases, battery, mounting extension tube and instruction booklet. Unlimited eye relief allows the 1X scope to be used on pistols, rifles, muzzle loaders, bows or by shooters with vision problems. Leupold/Gilmore scopes carry a two year warranty. New for 1999 35mm Matte Finish with 4 moa dot.

51656	1X 1 inch, 2 moa red dot	$156
51657	1X 35mm, 4 moa red dot	$236
51658	1X 35mm. 8 moa red dot	$236
52058	**1X 35mm, 4 moa red dot, Matte ..... NEW..**	**$236**
28592	2X 20mm EER Duplex	$168
35833	2X 20mm EER Duplex, Silver	$180
47210	4X 28mm EER Duplex, Matte	$227
41142	4X 28mm EER Duplex, Silver	$227
47196	2.5X8 32mm EER Duplex	$328
47198	2.5X8 32mm EER Duplex, Silver	$340

BENCHREST SCOPES

Redesigned in 1996 the 24X and 36X benchrest, called the BR-D, have the first major internal redesign in many years. With a two spring tracking system similar to the Mark 4, it offers positive adjustment and repeatability up to the end of the internal adjustment. Add $40 to prices shown for 36X scopes for power boosts to 40X. Reticle changes are extra.

50210 BR-D 24X Target crosshair, Matte $556
50210 BR-D 24X 1/8 moa dot, Matte $568
50210 BR-D 24X 1/2 moa dot, Matte $568
50207 BR-D 36X CH, Matte $582
50208 BR-D 36X 1/8 moa dot, Matte $594
50812 BR-D 36X CH, Silver $582
50813 BR-D 36X 1/8 moa dot, Silver $594

MARK 4 SCOPES

One of the toughest scopes in use today. It was designed in 1985 for various elite units of the United States armed forces, to the most stringent specifications ever written for a scope. It has been proven by .50 caliber shooters in 1000 yard benchrest competition over the last 9 years to be the only scope able to withstand the repeated cycles of the reverse recoil caused by the gases passing through the muzzle brake.

Machined from a solid piece of 6061-T6 aircraft aluminum it has a .100 inch wall thickness, twice the thickness of a regular hunting scope, a proven tracking system and a unique side focus/parallax adjustment that allows adjustments to be made while remaining in the shooting position.

The Mark 4 M3-10X, as well as Vari-X III 3.5X-10X M3 S.F., has an elevation adjustment with four different bullet drop dials calibrated for a .308M 168g at 2600 fps; .300 Win. Mag. 220g at 2650 fps; Springfield .30-06 180g at 2700 fps and 5.56mm (.223 Rem.) at 3200 fps.. M3-10X scope has 1 moa clicks on the elevation & 1/2 minute clicks for windage.

Mark 4 M1-10X and 16X scopes come with target style turrets that have 1/4 moa click adjustments on both windage and elevation. M1-16X scope has 140 minutes of internal adjustment on the elevation, ideal for long distance shooting.

All Mark 4 scopes are black matte finish, come with Butler Creek flip-up lens covers, a 2.5 inch long sunshade and Multi-coat 4 lenses. M3 scopes have adjustment covers.

45582 Mark 4 M3-10X Duplex $972
45578 Mark 4 M1-10X Duplex $972
45578 Mark 4 M1-10X 1/4 minute dot $972
45580 Mark 4 M1-16X Duplex $972
45580 Mark 4 M1-16X 1/4 minute dot $972

Mark 4 Tactical Conversions

The following Mark 4 scopes include a mil-dot reticle, the first choice for both law enforcement and the military sniper. All mil-dot reticles are a mechanical design and prevent retro-reflection that is caused by glass reticles. Post sections of the reticle are made to USMC standards and are very bold and visible under low light. Luminous posts are also available, see page 14.

Mark 4 M3-10X USMC Mil-dot p/n 45582M310T..... $1032
Mark 4 M3-10X Luminous Mil-dot p/n 45582M310LT $1057
Mark 4 M1-10X USMC Mil-dot p/n 45578M110T..... $1032
Mark 4 M1-10X Luminous Mil-dot p/n 45578M110LT $1057
Mark 4 M1-16X USMC Mil-dot p/n 45580M116T..... $1032
Mark 4 M1-16X Luminous mil-dot p/n 45580M116LT. $1057

Premier Mark 4 Power Conversions

Three power boosts to the #45580 Mark 4 M1-16X scope are offered for the serious competitive shooter or the long distance hunter wanting the Mark 4 features but in higher magnification. 20X, 24X and 32X conversions are offered.

All three scopes have new, high resolution objective lenses installed. The standard mil-dot is offered in the 20X. Choice of standard single aiming point reticles 3 through 9 are included in the base price. Optional modified mil-dot reticles or multiple dot reticles are available in all three conversions.

These conversions ***cannot be done*** to any Mark 4 16X scopes you would supply.

Mark 4 20X w/ reticle 3 through 9 p/n M420..... $1106
Mark 4 20X w/ USMC Mil-dot p/n M420T $1179
Mark 4 20X w/ USMC Lum. Mil-dot p/n M420LT $1204
Mark 4 24X w/ reticle 3 through 9 p/n M424..... $1144
Mark 4 32X w/ reticle 3 through 9 p/n M432..... $1164

Other Law Enforcement Scopes & Conversions

Premier Reticles Ltd. offers the most extensive inventory of

tactical scopes with mil-dot reticles in the world with 33 off - the-shelf combinations, including two spotting scopes. As a manufacturer of OEM mil-dot reticles, we offer scopes with mil-dots in magnifications unavailable any where else.

We define a tactical scope as having a black matte finish, a standard 3/4 minute mil-dot reticle, target style turrets and Butler Creek flip-up lens covers. A very wide variety of magnifications are offered in both fixed magnification and variable powers. Variable powers offer versatility giving a large field of view at low power, maximum light transmission at lower powers and high power for judging all important detail. You select the scope that best suits your needs.

When the mil-dot reticle is installed in a 6.5X20 or 8.5X25, a 10X mil-dot is used. To insure accuracy we collimate each scope individually at the exact power to give 1 mil spacing,..a witness mark is then machined onto the power ring. This unique feature is only available from Premier Reticles. By using a 10X mil dot, 1 mil spacing at approximately 10X and 1/2 mil spacing at 20X can be achieved. The 8.5X25 is marked at 10X and 20X.

4.5X14, 6.5X20 & 8.5X25

50MM SIDE FOCUS

M3 3.5X10 40MM

SIDE FOCUS

All conversion packages listed below have a mil-dot reticle. Tactical scopes with Duplex reticles are shown under standard scopes listed previously in this brochure.

The 6.5X20 40mm EFR and 8.5X25 40mm AO scopes include 2.5" long sunshades. 6.5X-20 & 8.5X-25 side focus include 4" long sunshades. For all other scopes listed sunshades and sunshields are optional. 3.5X10 40mm scopes will not accept optional sunshades, but will accept sunshields or the **new ARD.** The five Side Focus (S.F.) Long Range scopes with 30mm tubes are also shown. All other main tubes are 1 inch.

6X 42mm AO Tactical mil-dot p/n 502296T $425
3X9 40mm Tactical mil-dot p/n 504319T..... $362
12X 40mm AO Tactical mil-dot p/n 5015812T $485
3.5X10 40mm Tact. USMC mil-dot p/n 45266104T..... $505
3.5X10 40mm Tact. Lum. mil-dot p/n 45266104LT..... $530
3.5X10 40mm M3 SF Tact., USMC mil-dot
p/n 51182104SFT $694
3.5X10 40mm M3 SF Tact., Lum. USMC mil-dot
p/n 51182104SFLT..... $719
3.5X10 40mm M1 SF Tact., USMC mil-dot
p/n 52218104SFT .....NEW..$694
3.5X10 40mm M1 SF Tact., Lum. USMC mil-dot
p/n 52218104SFLT.....NEW..$719
4.5X14 40mm AO Tact. USMC mil-dot p/n 49207144T . $549
4.5X14 40mm AO Tact. Lum. mil-dot p/n 49207144LT . $574
4.5X14 50mm AO Targ. USMC mil-dot p/n 47867145T. $633
4.5X14 50mm AO Tact. Lum. mil-dot p/n 47867145LT . $658
4.5X14 50mm SF Tactical, USMC mil-dot
p/n 51604145SFT $654
4.5X14 50mm Side FocusTactical, Luminous mil-dot
p/n 51604145SFLT.....$679
6.5X20 40mm EFR USMC mil-dot p/n 49801204T.....$583
6.5X20 40mm EFR Lum. mil-dot p/n 49801204LT.....$608
6.5X20 50mm AO Targ. USMC mil-dot p/n 49025205T.....$641
6.5X20 50mm AO Targ. Lum. mil-dot p/n 49025205LT.....$666
6.5X20 50mm SF Target, USMC mil-dot
p/n 51605205SFT $699
6.5X20 50mm SF Target, Luminous mil-dot
p/n 51065205SFLT.....$724
8.5X25 40mm AO Targ. USMC mil-dot p/n 51086254T.....$592
8.5X25 40mm AO Targ. Lum. mil-dot p/n 51086254LT.....$617
8.5X25 50mm Side Focus Target, USMC mil-dot
p/n 51606255SFT $765
8.5X25 50mm Side Focus Target, Luminous mil-dot
p/n 51606255SFLT $790

SPOTTING SCOPES

Two spotting scopes with 3/4 minute modified mil-dot reticles are available. The Leupold 25X Compact is very small and easy to carry while the folded design of the variable Leupold 12X-40X produces a small package with a lot of versatility.

Both spotting scopes are waterproof and come with a black rubber armor finish. 25X has a drawstring black carrying bag while the 12X-40X comes with a hard plastic molded carrying case, black zippered bag with carrying strap and lens covers. Optional form-fitted, padded cases are available in black or olive drab color, for both spotting scopes. See page 23 for a description of cases and tripods that are available.

25X 50MM COMPACT SPOTTING SCOPE

25X 50mm Armor, modified mil-dot p/n 437801 ..... $582
Field case for 25X spotting scope $55.95

(12X-40X 60mm continued page 8)

12X-40X 60MM SPOTTING SCOPE

47878 12X-40X 60mm Armor, w/o reticle $656
12X-40X 60mm Armor, modified mil-dot p/n 47878MILDOT ..$796
Field case for 12X-40X spotting scope $69.95

Multiple Dot/Line Reticles

Any reticle having more than one dot is a multiple dot system. The extra dots serve many purposes and are installed to your custom specifications. Reticles with extra dots and/or lines are used by everyone from air gun competitive shooters to .50 caliber users.

There is no limit to the number of dots that may be installed. We have installed as many as 112 dots on one primary crosshair. Dots/lines may be installed above and/or below the center of the reticle.

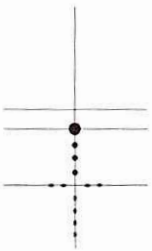
The only two rules that apply when ordering multiple dots are: First- Dots are installed only on target lines or fine lines. Second - Dots cannot be added to any other style reticle. With extra lines, only .00013" or .00045" are available.

Hold-over Dots

Most commonly dots are installed on the vertical line, below center, and are used for hold-over. Knowing the trajectory of any bullet and then spacing the hold-over dots based on this trajectory allows you to remove most of the guess work involved with long distance shooting. Dots are installed in 100 yard increments for center fire guns and may be installed, depending on drop, in smaller increments for air guns, .22 calibers and muzzle loaders.

Hold-over dots are installed below center to either correspond to the bullet trajectory or in even spacing of 2 to 3 minutes to serve as reference points.

If you are having multiple dots installed for bullet drop you could add an extra line at an intermediate distance and place the windage dots on this line. This sketch shows a reticle with a 200 yard zero and then hold-over dots, in 100 yard increments, out to 1000 yards. A range finder line was added above center to allow ranging from 339 yards to 1000 yards. Either a 6.5X20 or 8.5X25 scope would work best with this reticle. However, any lower powered scope could be used at shorter distances with less dots. Even without the windage dots as shown the extra line will make it easier select the proper dot.



Windage Dots

Dots placed to the right and left of the vertical line on the horizontal line are often used for allow for bullet drift caused by crosswinds.

Wind drift dots are typically installed with 3 minute spacing or if you have a printout could be spaced in 10 mile per hour increments. When using your target turrets to make corrections for bullet drop, a primary zero with the dots right and left of center are all that is needed.

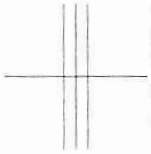
Some will request an extra line be installed vertically to the right and left of center with 3 minute spacing. These lines are used as reference points for wind drift. See page 9.

Range Estimating Dots

This reticle will range estimate two object sizes. Placing dots on the vertical line above center permits range estimating by establishing brackets that are calculated based on the exact size object you specify and distance(s) you specify.

If you wish to have range estimating dots installed they could be installed above center. See "range estimating reticles". Installed in a variable power scope each dot added for range estimating will determine distances for one size object. You could add as many dots above center that you have a different size object to range estimate. In a fixed power scope each pair of dots estimates one size object at one distance only. These are normally placed in 100 yard increments.

Extra Lines



By adding extra lines above or below center and right or left of center you can design a reticle utilizing any or all three of the features mentioned. Any line added must go entirely across the field of view and cannot be short marks. Shown here are two extra lines that have been added, one to the right and one to the left of center.

These extra lines can be installed in place of any of the extra dots, however, in our opinion because the lines must go across the field of view, you should avoid adding more than 3 or 4 extra lines because of the clutter the lines create.

Starting At The Center

Any multiple dot or line reticle begins at what we call the primary zero which is actually the exact center of the field of view. This primary zero may be set-up any one of three ways.

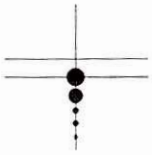
First, the horizontal duplex section of a fine, medium or heavy duplex can be installed on center. We remove the entire vertical section of the duplex and replace it with either a target line or a fine line. A dot cannot be added at the intersection.

Second, a plain crosshair can be installed on center with a target crosshair or a fine crosshair.

Third, a dot could be installed on the primary center.

Holdover/Range Estimating Reticle

This is the most popular combination range estimating/hold over reticle we offer. It is intended to be installed in 1.75X6, 2.5X8, 3.5X10 or 4.5X14 scopes that have the 200-600 yard scale on the power ring. The stadia line above center is placed to match ANY size object you specify. Using a 200 yard primary zero at the center, dots are placed below center at 300, 400, 500 and 600 yards.



To use the reticle you first bracket the object between the stadia line above center and the horizontal center line by zooming the power. After the object fits between the lines take a reading on the range scale that will show the distance in yards.

After the distance is determined take the power to the maximum setting and use the appropriate dot below center to aim with.

Cost for this reticle is $123 (plus S & H) installed in your scope and includes the 5 dots, range estimating line and a ballistic printout. Cost for this reticle installed in a new scope you are purchasing would be $107.10 and includes a printout.

For us to run a custom computer printout see "custom computer printout" page 18. You may supply your own printout. If you want the "Lazy Man" multiple dot system you may specify even spacing in minutes of angle.

If you are not certain what size dots to order let us know the size of the target or animal you will be hunting. We will install what we feel are the most appropriate size dots. Normally, we install the dots to cover the same amount on the target at each distance, so dots would get progressively smaller in appearance as distance increases.

A computer printout is not necessary if you know what the bullet drop is at different distances. Give us the drop in inches and the distances and we will compute the spacing in minutes of angle.

You can also use trajectory tables shown in reloading manuals. Please keep in mind that your velocity may be different. Most reloading manuals are also based on sea level and 59 degrees temperature. If your velocity, altitude and temperature is different, then using tables will not be accurate. At distances out to 300-400 yards this is not a problem but does become significant at longer distances.

Reticle No. 1

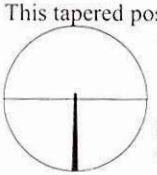
Sometimes referred to as a GERMAN POST reticle. Except for the crosshair reticle it is one of the oldest style reticles in continuous use since the early days of rifle scopes. Designed and used in early German scopes it is still the "standard" reticle in use today in Europe because of the low light hunting that is done mostly at dusk and dawn.

Visibility under low or poor light, close-in shots, shots taken in heavy brush or when a quick shot must be taken at a moving target makes this reticle ideal under these conditions.

Posts will appear about 4 times bigger than the thick section of a medium Duplex. Custom post spacing is not available.

Reticle No. 2

This tapered post with a horizontal crosshair reticle has the same application as reticle No.1 but does not obscure as much of the target. Also used for intermediate to longer distance shooting on average to large size game. Some who prefer this style reticle like it for shooting at moving game.



Tips of the tapered post are not available in custom sizes and it cannot be installed upside down. See the reticle table of subtensions. The base of the tapered post is the same appearance as a No. 1a reticle. Post tip is the same amount above the horizontal hair as the width of the post and forms a square aiming point above center.

Reticle No. 3

By far our most popular reticle. It is a very pleasing reticle to the eye because of it's simplicity. The round dot naturally draws the eye to the center.

Two style dot reticles are available. First is the target dot reticle installed on target style crosshairs. Often referred to as a floating dot reticle. The supporting lines are so fine that under certain conditions they have the appearance of disappearing.

The second style dot reticle, having medium to larger size dots, would be installed on fine appearing crosshairs that measure .00045"

Line sizes available with dots

To give you an idea of the actual size of the target crosshairs they are 3.3 microns. 1 micron is 1 millionth of a meter or .00004". Another comparison would be this line is about 20 times smaller than a human hair.

There are certain limitations to consider whether or not a target dot would be practical in your scope.

First, very small dot sizes must be installed on the target lines and would include dots .0024" and smaller. As an example 1/2 moa in 6X, 1/4 moa in 12X, 3/16 moa in 20X or 1/8 moa in 24X or 36X scopes. All these dots measure .0024" or smaller. See the reticle chart showing dot sizes and line sizes available in the various Leupold scopes.

Second, if a very large dot size is ordered it may be too massive for the target lines to support and could break at recoil. We would use the .00045" lines with the larger dots.

Lines sizes over .00045" are not available with No. 3 dot reticles.

Target dots are not available in any of our variable power boosted scopes. Although we use the same small size line it will appear as a fine line in the first focal plane of the power boosts. Therefore, the smallest size dot we can install in a variable power conversion is a 1/4 minute.

Selecting a dot size

Three factors determine what the best dot size would be.

First the dot must be the appropriate size for the target. You don't want a dot so big it covers the animal or aiming point on the target. Remember, as the distance to target increases so does the coverage of the dot on the target. As an example if a 1/2 minute dot was installed in your 12X scope and you were shooting at prairie dogs at 600 yards the dot will cover 3 inches (.5 X 6 = 3). The average prairie dog is only 1-1/2 inches wide. As you can see a smaller 1/4 moa dot would be more appropriate.

The second factor used to determine proper dot size is the magnification of the scope. Unfortunately this is one of the most difficult concepts for most dot users to understand.

Simply put, the higher the magnification of the scope the smaller the subtension of the dot that can be installed. So often dots too small for the magnification are requested. For example a 1/8 moa dot would be ordered to be installed in a low magnification scope. If made it would be impossible to see even for the best of eyes.

This 1/8 minute dot is a standard dot size for both the 24X and 36X scopes. To give you an idea of comparative size: if a 1/8 minute dot that measures .0024" were installed in a 6X scope it would subtend 6 times more on the target because the power of the scope is 1/6th the power of a 36X scope. This .0024" dot would therefore cover 6/8th or 3/4 minute if it was installed in a 6X scope. Imagine, if you can, a dot that would appear 6 times smaller than a target dot in a 36X scope! Impossible to see and not a very good choice.

The third factor for proper selection of a dot after the first two are considered is "How good are your eyes?" Generally speaking younger eyes can see smaller dots.

It is impossible know what size dot you will be able to see when the smaller sizes are requested. We use our best judgement based on the three above factors when determining an appropriate size. See the reticle subtension chart for our smallest and largest recommended dot sizes for various scopes.

Standard Dot Sizes Available

We offer four standard (No. 3) dot sizes "off the shelf". Cost is less than any other sizes that would be considered custom size dots made to order.

Three target dots in .0017", .0024" and .0030" sizes on target crosshairs may be ordered. A .0067" dot on .00045" lines is a standard size for competitive silhouette shooting and is appropriate for hunting on medium to large size game.

Dot sizes in variable power scopes

Any dot or other reticle installed in a variable power scope will change subtension as the power is increased or decreased. Dot sizes are typically ordered and installed at the maximum power setting. Most Leupold variable power scopes have zoom ratios of about 3X .

A dot with a specified size at maximum power will subtend 3X or 4X more at the lowest power setting, depending on variable power model and twice as much at the mid power setting.

Unless you specify a power setting, we will do calculations at the maximum setting. You may, however, specify a size at any other power setting.

With our variable power conversions (1" tube only) the reticle is installed in the magnifying position (first focal plane) of the optical system. The dot subtension in any of these scopes will remain constant regardless of the power setting. A 1/4 moa dot will always subtend 1/4 moa but will appear larger to the eye as the power of the scope is increased.

What happens is that the reticle and image are increased in size at the same ratio. So as image size increases so does the apparent reticle size.

Oval Shaped Dots

Unless a dot is installed at the intersection of two lines it will always be oval shaped. The smaller the dot the more oval shaped it becomes. We cannot make these dots round because our reticles are "mechanical".

Keep this in mind when ordering multiple dot reticles. Target crosshairs allow a more round dot and fine crosshairs will produce a less round dot.

We make and measure dot subtensions over the longest part of the dot.

Colored dots and other reticles

Dots or any reticle we supply will always appear black. All reticles, except for the dots, are actually silver. Because the light comes through the objective end of the scope the reticle is in a shadow and will always appear black. Unless the reticle could be illuminated with a light source it will always appear black. We cannot illuminate the reticle.

Reticle No. 4

Three posts with crosshair (3PCH), this reticle is a variation of the Duplex reticle.

With the No. 4 and 4a reticle the thick section of the reticle, or the post, is nearly four

times broader than a medium duplex and under very low light will be more visible. Thin section dimension at the center is about the same as a medium duplex in the center.

Tip spacing of the No. 4 reticle is approximately the same as a medium duplex. The No. 4a reticle has horizontal and vertical tip spacing twice as wide as the No. 4 reticle.

No. 4e is a European design reticle with a very bold appearance. Posts are seven times bigger than a medium duplex at the wide part The center crosshair section is the same dimension as a heavy duplex reticle at the center. Consider the 4e if you need the maximum visibility in low light or brush hunting.

Tips of the posts are square. Tip spacing cannot be customized and none of the number 4 reticles can be ordered with custom size lines. Dimension "C" is not shown in the reticle subtension chart because several different spaces are available. Specify if you want narrow or wide spacing.

Dots cannot be added to the lines of these reticles.

Reticle No. 5

We assign reticle No. 5 to the traditional LEUPOLD DUPLEX reticle. It was invented by Leupold and is copied by all other scope manufacturers. This has become the standard reticle installed in most hunting style scopes sold for the past 30 years. It is considered by many to the best all around reticle.

Available in three thicknesses, most of these three can be installed in any Leupold scope. Exceptions would be the extended eye-relief scopes, Mark 4 scopes and power boosted variable scopes.

Choices are fine duplex, medium duplex or heavy duplex. Fine duplex reticles are factory installed in the 4X12, 6X18 12X, 4.5X14, 6.5X20, 8.5X25 and rimfire scopes. Medium duplex comes in most other fixed and variable power scopes. A heavy duplex is installed mostly in lower powered fixed and variable power scopes.

Dimensions shown in the reticle chart under Fine Duplex apply only to scopes having a 4.5X-14X duplex installed. The "C" dimension spacing will apply. The "A" and "B" dimensions shown in the table are the same as a factory installed reticle would be in a new scope.

Vari X-III scopes sent for medium duplex reticles will have the appropriate "C" dimension spacing to correspond with the range scale on the power ring. Fine and heavy duplex reticles are not available to correspond to the range scale.

We can install any of the three duplex sizes in any compact, fixed power scope, Vari X-II, Vari X-III, 1" tube fixed power scopes including 24X and 36X or SFP variable power boosts.

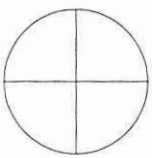
Diamond Dot Added to Medium Duplex

A dot may be added to the center of a medium size duplex that will give the duplex slightly more visibility under low light. It will be diamond shaped and cannot be round.

Not available in custom sizes. Dot subtension is measured across the flats. It is 5.3 times larger than the medium duplex, "A" dimension. See the reticle subtension chart for duplex subtensions.

Reticle No. 6

Our reticle number 6 is a plain and simple crosshair reticle. The name crosshair is mistakenly used by many to refer to any style reticle. A duplex is not a crosshair nor is any other style.



We offer three crosshair sizes in all standard Leupold scopes.

First is the .00013" target crosshair. As explained under the number 3 reticle this is the smallest size crosshair that may be installed. It is referred to as a target crosshair because it is customarily installed in high magnification scopes. It subtends the least amount of any reticle we offer. It can be installed in any Leupold scope but should be chosen with caution if it is to be used under low light conditions, dark backgrounds or if your vision is not good.

Second choice is a .00045" fine crosshair. It is more than 3 times bigger than the target crosshair and is more suitable for varmint hunting and for less than perfect eyes. Many benchrest shooters prefer the fine cross over the target crosshair because it does not cause eye strain.

This .00045" size is mostly used with multiple dot systems with average size dots.

The appearance of a crosshair installed in a PREMIER variable power conversion is the same as a fine crosshair.

Third choice is the .0010" medium crosshair. A much more visible reticle than either the target or fine crosshair it is the same size as used with mil-dot reticles. Medium crosshairs CANNOT have multiple dots added or be used with single dot reticles.

These three sizes are considered standard sizes. Multiple dot reticles are installed ONLY on .00013 or .00045 crosshairs and are not available with other size lines.

Variable power boosts are available in one size crosshair only. We use the .00013 lines for both the fine crosshair and to install dot reticles on. No other size is available in variable power boosted scopes.

Reticle No. 7

A LEUPOLD exclusive reticle referred to as a LEUPOLD CPC reticle. It is short for "Converging Post Crosshair," or in layman terms a tapered crosshair. The reticle starts big on the edges of the field of view and taper to the smallest size at the center of the reticle.

Two sizes are offered. The "fine" No. 7 starts out at the edge about the same size as a fine duplex, at the thick part and tapers down in size equivalent to thin section of a fine duplex.

A "medium" No. 7 starts out similar to a medium duplex at the edge and tapers down to about the same size as a medium duplex at the center.

Always specify either a "fine" or "medium" size when ordering. Not available in custom sizes or in EER, Mark 4 or first focal plane variable power boosted scopes.

Reticle No. 9

This is another LEUPOLD exclusive reticle named the LEUPOLD DOT. It is a variation of the No. 7 (CPC) reticle and has a dot added at the center.

Two size dots are available, either a .0035" or .0060". Tapering crosshairs used with No. 9 reticles are available only in a fine configuration. Custom dot sizes are not available with this reticle and cannot be installed in EER, Mark 4 or first focal plane power boosts.

MIL-DOT reticles

History of the Mil-Dot

Mil-dots were developed by the U.S. Marine Corps in the late 1970's as an aid for the Marine sniper in estimating distances. Since that time it has become the standard for both the military and law enforcement as a standard means of range estimating.

The name mil-dot comes from the term "milliradian" and the dots that are spaced in 1 mil increments on the crosshair. By using the mil formula, a table can be generated based on the size of the object being range estimated. See the sample **TABLE OF MILS FOR OBJECTS**. If this table does not include a size target that you will be ranging, a custom or personalized table can be generated using the "mil-formula" either in yards or meters.

To use the reticle, an object is viewed with the scope. By bracketing the object between the dots and using the table, it is possible to estimate distances.

A mil-dot reticle is most versatile if many different size objects must be range estimated. You may want to consider a simpler to use range estimating reticle if you are using a variable power scope and want to range estimate 1 to 3 different object sizes, see "Range Estimating Reticles".

Available in three styles

PREMIER RETICLES manufactures three different styles of mil-dot reticles. All three are wire reticles. They are not made on glass and will always have dots that are oval shaped. Although dot mass is 3/4 minute of angle, the dot is slightly longer and slightly narrower than 3/4 minute. One advantage of this oval shape is the dot is made to a length of 1/4 mil. A 3/4 minute round dot on glass would be .22 mil.
In a tactical environment a wire mil-dot reticle will prevent retro-reflection caused by glass reticles.

Reticle No. 10 (STD mil-dot)

The traditional style with the broad posts at the edges of the reticle is called the standard 3/4 minute mil-dot. Our mil-dots are made to both ARMY and USMC standards. U.S. Army mil-dots have posts that are 45% narrower than the posts on USMC mil-dots.

Army spec mil-dot reticles are only available in Mark 4 M3-6X, M3-10X, M1-10X, 6X42mm, 2.5X8, 3X9, 4X12 and 12X scopes. All other scopes including 3.5X10, 4.5X14, 6.5X20, 8.5X25, Mark 4 16X and 20X can have only the USMC spec mil-dot installed.

Installed in the 3X9, 2.5X8, 3.5X10, 4X12 or 4.5X14 scopes the mil spacing is correct only at the maximum power setting, however, the center part of the reticle if used as an aiming point can be used at any power.

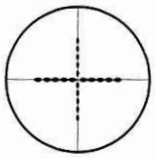
When the standard mil-dot is installed in a 6.5X-20X or 8.5X-25X, the power ring of the scopes are collimated and marked at approx. 10X so spacing can be set at exactly 1 mil. 20X is marked on the 8.5X-25X. Using either scope at 20X (1/2 mil) doubles the distances shown in the mil-table.

Standard mil-dots can be installed in ANY of the LEUPOLD fixed power, variable power and compact riflescopes, if you like the appearance, but the dot spacing will not be 1 mil and dots will not be 3/4 moa. See the reticle subtension chart for what 3.5X-10X mil-dot subtensions will equal in your scope.

Luminous Mil-dot posts

As an option, standard USMC 3/4 minute mil-dot reticles with luminous posts are available for an additional fee of $25 over either the reticle price installed in customer supplied scopes or in new scopes being purchased. Not available with any Army spec mil-dot reticle. A non-radioactive, luminescent material is applied to the posts of the reticle. It is charged by shining a pocket flashlight into the eyepiece of the scope for approximately 15-20 seconds. The posts will "glow" for up to 15 minutes. Dots or the wire cannot be made with this luminescent material.

Reticle No. 10a (Modified Mil-Dot)



Since there is a small demand for a mil-dot reticle in the 6.5X-20X (set at 20X) and the Leupold-Premier Mark 4 M1- 24X or 32X conversions, the modified mil-dot is offered. The modified mil-dot, with 1 mil spacing, can be made for any magnification Leupold fixed power, compact, Vari X-II, Vari X-III, Mark 4 or power boosted scope.

All modified mil-dots have the 1 mil spacing, but instead of the four broad posts at the edges of the field of view, a fifth dot takes the place of the post tip to form the 5 mil space. When ordering you may specify target, fine or medium crosshairs and dot sizes, as small as 1/8 minute depending on magnification, with any modified mil-dot reticle except in spotting scopes.

Modified mil-dot reticles can be made with three crosshair sizes. Target crosshair, fine crosshair or medium crosshair.

Custom size dots can also be added to target crosshair and fine crosshair. Dots as small as 1/8 moa can be installed in any scope with 12X magnification or higher and would be installed ONLY on target crosshair. Medium crosshairs can ONLY have 3/4 minute dots installed...nothing smaller.

Custom Mil-dot reticles

Mil-dot reticles are not made for any particular load or caliber rifle and are made ONLY with 1 mil spacing. They cannot have custom dot spacing We can, however, design a multiple dot reticle with dots spaced in 100 yard or 100 meter increments, based on your load, if you would like to use a custom reticle for long distance shooting. Depending on the load and caliber, dots could be installed out to as far as 1000 yards. 50 caliber loads even farther. See "Multiple Dot Reticles".

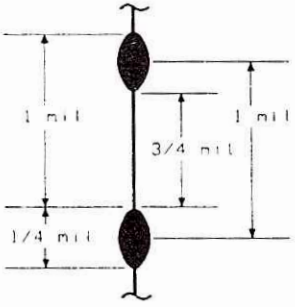
Mil-dots installed in customer supplied scopes

All STD mil-dot reticles previously mentioned, except for Mark 4 16X, can be installed in your scope. Modified mil-dots, with 1 mil spacing, may be installed in your Mark 4 16X or any other Leupold rifle scope.

Modified mil-dots cannot be installed in ***your*** 25X compact or 12X-40X variable power spotting scope.

Enlarged view of a MIL-DOT reticle

This enlarged view of a 3/4 moa mil-dot reticle shows dimensions of the dots and spacing. Modified mil-dots installed in the 25X and 12X-40X spotting scope will be the same. Unless a modified mil-dot has 1/4 mil dots the spacing between the inside edges of the dots will not be 3/4 mil.



Converting mils to Minutes of Angle

Mil-dots on the vertical line can be used for hold over estimating if the mil spacing is converted to minutes of angle. To do this multiply mils by 3.438. For example 5 mils is (5 X 3.438) or 17.19 moa.

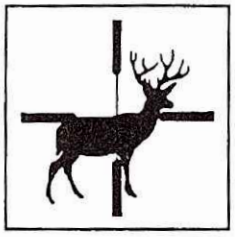
RANGE ESTIMATING RETICLES

Range estimating reticles can be installed in either fixed power or variable power LEUPOLD scopes using the stadia (bracketing) method.

Using the Duplex as a range estimating reticle

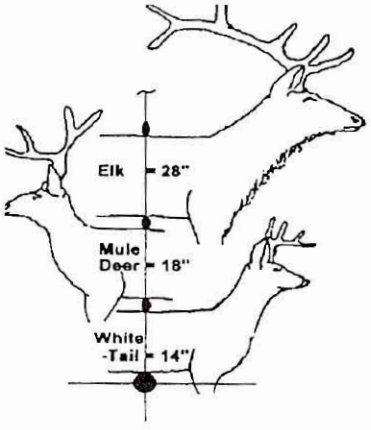
The simplest method, for range estimating, is to use the standard Vari X-III 1.75X6, 2.5X8, 3.5X10 or 4.5X14 scope with a duplex reticle. When sighting a deer or other object , turn the power selector ring until the deer's body (or other measurement of approximately 16 inches) fits into the area between the post and crosshair of the reticle as shown in the illustration. The number on the back of the power selector ring indicates the range in 100 yard increments (200 through 600). If the animal size is 32 inches multiply the range scale on the power ring by 2 for the correct distance.

One disadvantage of this duplex reticle is that it can only be used on 16 inch or 32 inch dimensions unless you recalculate the range scale. It cannot be used with multiple dot reticle systems. You do, however, have the option of having the duplex reticle modified by having one or more very fine lines added above the center of the duplex based on an object size different than 16 inches. The spacing would be calculated to range estimate using the 200-600 yard range scale. Using the following range tables, distances other than 200-600 yards and other LEUPOLD variable power scopes that do not have the range estimating scale could be utilized.



Dots Used for Range Estimating

We can install dots above the primary center of the reticle that would be custom designed to bracket one or more animal sizes. Each dot added above the center will establish an opening that can be used to range estimate one specific size animal or object. The following sketch shows a reticle that can be used to estimate three different size animals. The sizes shown are only examples and may be made to your specifications.



Range Estimating Tables for Variable Scopes

The following tables show the range estimating capabilities of some of the more popular variable power scopes used for long distance shooting.

To use, first find the table that shows the scope you intend to use. Second, follow the rows down the left side of the columns until you find the maximum range you want to estimate. Go across the row to the right side of the table. The number under the minimum power setting would be the starting distance in yards. Only one row will apply to your scope.

Once you have determined which row will apply to the distances you want to range estimate and after we have installed a ranging reticle in your scope it is a simple matter of comparing the power setting you end up on after you have bracketed the object at an unknown distance.

Intermediate powers indicate intermediate distances. Maximum power reading indicates maximum distance and minimum power setting indicates minimum distance.

4X-12X

12X	11X	10X	9X	8X	7X	6X	5X	4X
1200	1096	996	896	797	697	598	498	455
1000	913	830	747	664	581	498	415	379
900	822	747	672	598	523	448	374	341
750	685	623	560	498	436	374	311	284
600	548	498	448	398	349	299	249	227
500	457	415	374	332	291	249	208	189
450	411	374	336	299	261	224	187	170
400	365	332	299	266	232	199	166	152
300	274	249	224	199	174	149	125	114

3X-9X

9X	8X	7X	6X	5X	4X	3X
900	792	693	594	495	396	345
750	660	578	495	413	330	287
600	528	462	396	330	264	230
500	440	385	330	275	220	192
450	396	347	297	248	198	172
400	352	308	264	220	176	153
300	264	231	198	165	132	115

8.5X-25X

25X	22X	20X	18X	15X	12X	10X	8.5X
1000	880	800	720	600	480	400	340
900	792	720	648	540	432	360	306
750	660	600	540	450	360	300	255
600	528	480	432	360	288	240	204
500	440	400	360	300	240	200	170
450	396	360	324	270	216	180	153
400	352	320	288	240	192	160	136
300	264	240	216	180	144	120	102

6.5X-20X

20X	18X	16X	14X	12X	10X	8X	6.5X
1000	900	800	700	600	500	400	339
900	810	720	630	540	450	360	305
750	675	600	525	450	375	300	254
600	540	480	420	360	300	240	203
500	450	400	350	300	250	200	169
450	405	360	315	270	225	180	152
400	360	320	280	240	200	160	135
300	270	240	210	180	150	120	102

4.5X-14X

14X	12.5X	11X	9X	8X	6.5X	5X	4.5X
1000	900	792	648	576	468	360	342
900	810	713	583	518	421	324	308
750	675	594	486	432	351	270	257
600	USE POWER RING RANGE SCALE						200
500	450	396	324	288	234	180	171
450	405	356	292	259	211	162	154
400	360	317	259	230	187	144	137
300	270	238	194	173	140	108	103

3.5X-10X

10X	9X	8X	7X	6X	5X	4X	3.5X
1000	900	800	700	600	500	400	340
900	810	720	630	540	450	360	306
750	675	600	525	450	375	300	255
600	USE POWER RING RANGE SCALE						200
500	450	400	350	300	250	200	170
450	405	360	315	270	225	180	153
400	360	320	280	240	200	160	136
300	270	240	210	180	150	120	102

Fixed Power and Variable Power Conversion Range Estimating Reticles

Fixed power and all variable power boosts can also have bracketing dots or lines added for range estimating. Range estimating dots or lines installed in these scopes will be somewhat more complicated because for each different distance to be estimated an additional line, or dot, would be needed. If three distances were to be estimated then three lines, or dots, would be required. NOTE: You ***cannot*** use the power ring, as described with the range estimating tables, on variable power boosts because spacing between the lines or dots remains constant as the magnification is changed.

Lines Used for Range Estimating

The following example shows three distances from 300 to 500 yards set-up to range estimate. Lines are used instead of dots. Any time lines are used they ***must*** extend from one side of the field of view to the other. They cannot be short marks. We prefer dots instead of lines because the reticle appears cleaner and less cluttered.

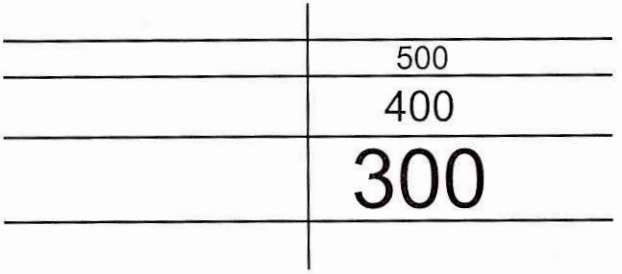
As shown in the example, the 500 yard number appears smaller than the 400 and 300 yard number. An animal or object, as the distance increases, also appears smaller. Just fit the animal or object between the proper pair of lines and the distance has been estimated.

The numbers shown in the example are for reference only and are not installed with the reticle.

This style reticle or one with dots (see pages 8 & 15) instead of lines would be installed in a fixed power scope or a variable power boost. Since the image size cannot be increased and decreased like it can in a variable power scope each "bracket" would be equivalent to only one distance.

If this style reticle was installed in a variable power scope it could be set-up at maximum power. Range estimating is done only at high power without changing the magnification while using the reticle. We do not suggest this reticle in a variable power scope because it limits the versatility you have with the 3X zoom ratio.

For example, one line added above center and used with the power ring would allow range estimating from 200 to 600 yards.
The same reticle shown with three lines added, when installed in a variable power scope would allow you to range estimate three different size animals as shown on page 16.



When ordering range estimating reticles please specify the size of the animal(s) or object(s) and the distances you would like to range estimate.

When lines are added for range estimating it is not an option to specify the size of these lines. We install .00045" lines, in standard scopes and are what we refer to as fine lines.

Dots added above center for range estimating will be made big enough to be seen but not so large to be distracting. Because the dots have a certain size, all bracketing is to be done between the inside edges of each pair of dots.

Mil-dot reticles, depending on the size of object and distance to be estimated, can be an excellent reticle to have installed in certain LEUPOLD scopes. Please see "mil-dot reticles" for details.

The limitation with the mil-dot reticle is that it used only for range estimating and the smaller the object size the shorter the maximum range capability becomes.

For example, a 9 inch target can be range estimated, using a mil-dot reticle from 25 yards to 333 yards. Installed in either a 6.5X20 or 8.5X25 the maximum distance will double to 666 yards (when "milling" is done at 20X). Instead of a mil-dot reticle, one range estimating dot, added above center, in a variable power scope could estimate distance from 339 yards to 1000 yards.

EXTERIOR BALLISTICS PRINTOUT PREPARED FOR Dick Roberts, JANUARY 2, 1997, BY CHRIS THOMAS

CARTRIDGE.. 7MM STW; 160G NOSLER PARTITION SPITZER; LEUPOLD 6.5X20 50MM AO MATTE, S/N 105767

MUZZLE VELOCITY.... 3200 FPS BULLET WEIGHT.... 160 GRAINS RANGE TO ZERO.... 200 YARDS
ALTITUDE AT GUN.... 1000 FEET TEMPERATURE..... 30 DEG-F SCOPE ABOVE CENTER-LINE OF BORE.... 1.875 INCHES
BALLISTIC COEFFICIENT... .475 0 0 0 VELOCITY (FPS)... 3200 0 0 0

RANGE YARDS	VEL. FPS	ENERGY FT-LBS	BULLET PATH FROM SITE LINE MOA	BULLET PATH FROM SITE LINE INCHES	10-MPH CROSS WIND DEFLECT. MOA	10-MPH CROSS WIND DEFLECT. INCHES	FLIGHT TIME SEC.	CLICK VALUE IN INCHES 1/8	CLICK VALUE IN INCHES 1/4	LEAD REQ'D FOR MOVING TGT. 2.5-MPH MOA	2.5-MPH IN.	5-MPH MOA	5-MPH IN.	10-MPH MOA	10-MPH IN.	SEE FOOT NOTE 15	30	45
																-----MOA-----		
100	2986	3168	+0.96	+1.01	0.5	0.6	0.0969	0.13	0.26	4	4	9	9	17	17	0	0	1
200	2783	2751	+0.00	+0.00	1.1	2.4	0.2009	0.26	0.52	4	9	9	18	18	35	0	0	1
300	2588	2379	-1.76	-5.53	1.8	5.6	0.3129	0.39	0.79	5	14	9	28	18	55	0	1	2
400	2401	2049	-3.86	-16.17	2.4	10.2	0.4328	0.52	1.05	5	19	10	38	19	76	0	1	2
500	2223	1755	-6.30	-32.98	3.2	16.6	0.5630	0.65	1.31	5	25	10	50	20	99	0	1	3
600	2052	1495	-9.04	-56.80	4.0	24.8	0.7036	0.79	1.57	5	31	10	62	21	124	0	2	4
700	1888	1266	-12.08	-88.57	4.8	34.9	0.8548	0.92	1.83	5	38	11	75	21	150	1	2	5
800	1734	1068	-15.62	-130.87	5.7	47.8	1.0217	1.05	2.09	6	45	11	90	22	180	1	3	6
900	1590	898	-19.63	-185.01	6.7	63.3	1.2033	1.18	2.36	6	53	12	106	24	212	1	3	7
1000	1456	753	-24.10	-252.43	7.8	81.3	1.3992	1.31	2.62	6	62	12	123	25	246	1	4	9

NOTE: 1- A crosswind of 5-mph will drift the bullet one-half the amount shown for a 10-mph wind. A 20-mph wind will cause twice the drift and a 30-mph wind three times, etc....
2- Last column shows amount bullet will impact high, rounded off to the nearest MOA, when shooting either uphill or downhill at the three different angles shown.

Custom Computer Printout

We offer ballistic printout's run to your specifications. It is a very accurate tool to determine your bullets trajectory if you are having a multiple aiming point reticle made or if you just want to make elevation adjustments to compensate for various distances.

By providing the following information a printout similar to the one at the top of this page can be run.

1) Muzzle velocity. Preferably chronographed.

2) Weight of bullet.

3) Ballistic Coefficient. If you do not know the B.C. provide a complete description of the bullet including brand, type and caliber. The manufacturers bullet part number is also useful for us to determine the ballistic coefficient.

4) Altitude. This should be given where you expect to shoot. Variations more than 2000 feet will effect trajectory of the bullet. Higher altitudes will cause the bullet to impact higher.

5) Temperature. Give an average of highest and lowest temperatures you anticipate. A 50 degree spread will be the limit without a significant change in trajectory.

6) Primary zero. This is the center, primary intersection of the reticle or the closest distance where you would be zeroed.

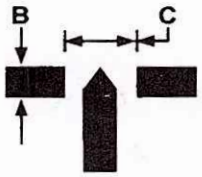
7) Should the printout be run in yards or meters? Unless specified it will be run in yards.

8) Height of sight line above center-line of bore. We use 1.5 inches for 40mm AO and 1.875 inches for 50mm AO scopes and 1.75 inches for 50mm non-AO scopes as the amount above the center line of the bore, unless you give a different dimension. This is measured from the center of bore to the center of the scope.

9) You will be provided an 8.5" X 11" printout. You can specify up to 20 lines with the above format, shown in sample printout at the top of this page, in any increment you specify. For example the above printout could be run in 50 yard increments and produce the maximum 20 lines.

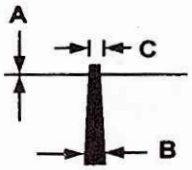
Up to 40 lines can be printed in a narrow format on the same size sheet but will not include the lead required for moving target column, amount bullet will impact high or low column or have the two foot notes printed.

GERMAN POST



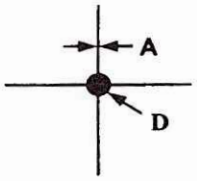
#1

POST CROSSHAIR



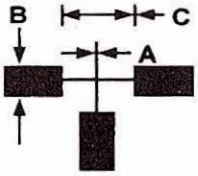
#2

DOT



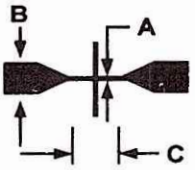
#3

EUROPEAN STYLE



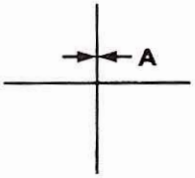
#4

DUPLEX



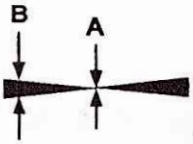
#5

CROSSHAIR



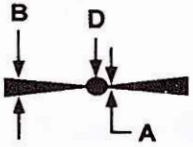
#6

CPC



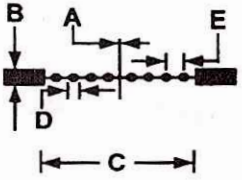
#7

LEUPOLD DOT



#9

USMC MIL-DOT



#10

Use these reticle drawings with the two reticle subtension tables on the following two pages.

To use the tables: First, decide what dimension for what part of the reticle you want to know. Then find the reticle number along the top row of the table. Second find the category that shows your model.

The first column on the left side of the table shows various magnifications. If your scope is a fixed power then only one row in the table will apply. If you have a variable power scope you can determine what any of the listed reticles will subtend at any power within the range of your scope.

Please note that the drawings on this page or any of the various sketches of reticles or portions of reticles in this brochure are not drawn to scale. Relative size or appearance comparisons cannot be made.

Reticles installed in your scope may appear different than the drawings shown in this brochure. In most cases reticle appearances have been exaggerated and are much larger than they will actually appear in your scope.

Mil-dot reticles installed in any tactical scope will have 1 mil spacing and 3/4 moa (1/4 mil) dots. Do not use table dimensions shown except for 3.5X10 scopes and Mark 4 6X, 10X and 16X. 14X row applies to 4.5X-14X at 14X.

Variable power boosts with first focal plane reticles are not shown in the tables. Crosshair subtension is .040 moa both with and without a dot reticle. 1/4 minute or larger dots subtend the same amount regardless of power setting.

RETICLE SUBTENSIONS

Mag.	#1(1) B	#1(1) Ca	#1(1) Cb	#1(1) Cc	#2 A	#2 B	#2 C	#3 (2) With Target Crosshair Min.	.0017	.0024	.0030	Max.	#3 (2) With Fine CH Min.	.0067	Max.	#4 & #4a A	#4 & #4a B	#4 & #4a #4 C	#4 & #4a #4a C	#4e (3) A	#4e (3) B	#4e (3) A	#4e (3) B	#4e (3) Ca	#4e (3) Cb	#4e (3) Cc
VARI X-III, VARIX-II AND FIXED POWER																										
1X	23.68	102.6	150.0	171.1	2.24	21.05	4.61	1.3	2.24	3.16	3.95	7.89	6.58	8.82	15.79	1.71	13.16	51.32	102.6	3.68	35.53	2.63	24.34	102.6	150.0	171.1
1.5X	22.78	98.73	144.3	164.6	2.15	20.25	4.43	1.3	2.15	3.04	3.80	7.59	6.33	8.48	15.19	1.65	12.66	49.37	98.73	3.54	34.18	2.53	23.42	98.7	144.3	164.6
1.75X	18.00	78.00	114.0	130.0	1.70	16.00	3.50	1.0	1.70	2.40	3.00	6.00	5.00	6.70	12.00	1.30	10.00	39.00	78.00	2.80	27.00	2.00	18.50	78.0	114.0	130.0
2X	13.85	60.00	87.69	100.0	1.31	12.31	2.69	.77	1.31	1.85	2.31	4.62	3.85	5.15	9.23	1.00	7.69	30.00	60.00	2.15	20.77	1.54	14.23	60.0	87.7	100.0
2.5X	12.86	55.71	81.43	92.86	1.21	11.43	2.50	.71	1.21	1.71	2.14	4.29	3.57	4.79	8.57	.93	7.14	27.86	55.71	2.00	19.29	1.43	13.21	55.7	81.4	92.9
3X	12.00	52.00	76.00	86.67	1.13	10.67	2.33	.67	1.13	1.60	2.00	4.00	3.33	4.47	8.00	.87	6.67	26.00	52.00	1.87	18.00	1.33	12.33	52.0	76.0	86.7
3.5X	9.63	41.71	60.96	69.52	.91	8.56	1.87	.53	.91	1.28	1.60	3.21	2.67	3.58	6.42	.70	5.35	20.86	41.71	1.50	14.44	1.07	9.89	41.7	61.0	69.5
4X	8.18	35.45	51.82	59.09	.77	7.27	1.59	.45	.77	1.09	1.36	2.73	2.27	3.05	5.45	.59	4.55	17.73	35.45	1.27	12.27	.91	8.41	35.5	51.8	59.1
4.5X	6.32	27.37	40.00	45.61	.60	5.61	1.23	.35	.60	.84	1.05	2.11	1.75	2.35	4.21	.46	3.51	13.68	27.37	.98	9.47	.70	6.49	27.4	40.0	45.6
5X	5.81	25.16	36.77	41.94	.55	5.16	1.13	.32	.55	.77	.97	1.94	1.61	2.16	3.87	.42	3.23	12.58	25.16	.90	8.71	.65	5.97	25.2	36.8	41.9
6X	5.45	23.64	34.55	39.39	.52	4.85	1.06	.30	.52	.73	.91	1.82	1.52	2.03	3.64	.39	3.03	11.82	23.64	.85	8.18	.61	5.61	23.6	34.5	39.4
6.5X	5.29	22.94	33.53	38.24	.50	4.71	1.03	.29	.50	.71	.88	1.76	1.47	1.97	3.53	.38	2.94	11.47	22.94	.82	7.94	.59	5.44	22.9	33.5	38.2
7X	5.00	21.67	31.67	36.11	.47	4.44	.97	.28	.47	.67	.83	1.67	1.39	1.86	3.33	.36	2.78	10.83	21.67	.78	7.50	.56	5.14	21.7	31.7	36.1
8X	4.39	19.02	27.80	31.71	.41	3.90	.85	.24	.41	.59	.73	1.46	1.22	1.63	2.93	.32	2.44	9.51	19.02	.68	6.59	.49	4.51	19.0	27.8	31.7
8.5X	4.09	17.73	25.91	29.55	.39	3.64	.80	.23	.39	.55	.68	1.36	1.14	1.52	2.73	.30	2.27	8.86	17.73	.64	6.14	.45	4.20	17.7	25.9	29.5
9X	3.95	17.11	25.00	28.51	.37	3.51	.77	.22	.37	.53	.66	1.32	1.10	1.47	2.63	.29	2.19	8.55	17.11	.61	5.92	.44	4.06	17.1	25.0	28.5
10X	3.27	14.18	20.73	23.64	.31	2.91	.64	.18	.31	.44	.55	1.09	.91	1.22	2.18	.24	1.82	7.09	14.18	.51	4.91	.36	3.36	14.2	20.7	23.6
11X	3.00	13.00	19.00	21.67	.28	2.67	.58	.17	.28	.40	.50	1.00	.83	1.12	2.00	.22	1.67	6.50	13.00	.47	4.50	.33	3.08	13.0	19.0	21.7
12X	2.78	12.04	17.59	20.06	.26	2.47	.54	.15	.26	.37	.46	.93	.77	1.03	1.85	.20	1.54	6.02	12.04	.43	4.17	.31	2.85	12.0	17.6	20.1
14X	2.36	10.21	14.92	17.02	.22	2.09	.46	.13	.22	.31	.39	.79	.65	.88	1.57	.17	1.31	5.10	10.21	.37	3.53	.26	2.42	10.2	14.9	17.0
16X	1.98	8.57	12.53	14.29	.19	1.76	.38	.11	.19	.26	.33	.66	.55	.74	1.32	.14	1.10	4.29	8.57	.31	2.97	.22	2.03	8.6	12.5	14.3
18X	1.97	8.54	12.49	14.24	.19	1.75	.38	.11	.19	.26	.33	.66	.55	.73	1.31	.14	1.10	4.27	8.54	.31	2.96	.22	2.03	8.5	12.5	14.2
20X	1.67	7.22	10.56	12.04	.16	1.48	.32	.09	.16	.22	.28	.56	.46	.62	1.11	.12	.93	3.61	7.22	.26	2.50	.19	1.71	7.2	10.6	12.0
24X	1.45	6.29	9.20	10.49	.14	1.29	.28	.08	.14	.19	.24	.48	.40	.54	.97	.10	.81	3.15	6.29	.23	2.18	.16	1.49	6.3	9.2	10.5
25X	1.40	6.05	8.84	10.08	.13	1.24	.27	.08	.13	.19	.23	.47	.39	.52	.93	.10	.78	3.02	6.05	.22	2.09	.16	1.43	6.0	8.8	10.1
36X	0.97	4.19	6.13	6.99	.09	.86	.19	.05	.09	.13	.16	.32	.27	.36	.65	.07	.54	2.10	4.19	.15	1.45	.11	.99	4.2	6.1	7.0
40X	0.87	3.77	5.51	6.28	.08	.77	.17	.05	.08	.12	.14	.29	.24	.32	.58	.06	.48	1.88	3.77	.14	1.30	.10	.89	3.8	5.5	6.3
50X	0.73	3.16	4.62	5.26	.07	.65	.14	.04	.07	.10	.12	.24	.20	.27	.49	.05	.40	1.58	3.16	.11	1.09	.08	.75	3.2	4.6	5.3
COMPACT																										
2.5X IER	10.34	44.8	65.52	74.71	.98	9.20	2.01	.57	.98	1.38	1.72	3.45	2.87	3.85	6.90	.75	5.75	22.41	44.83	1.61	15.52	1.15	10.63	44.83	65.52	-
2X	15.00	65.0	95.00	108.3	1.42	13.33	2.92	.83	1.42	2.00	2.50	5.00	4.17	5.58	10.00	1.08	8.33	32.50	65.00	2.33	22.50	1.67	15.42	65.00	95.00	-
2.5X	16.07	69.6	101.8	116.1	1.52	14.3	3.13	.89	1.52	2.14	2.68	5.36	4.46	5.98	10.71	1.16	8.93	34.82	69.64	2.50	24.11	1.79	16.52	69.64	101.8	-
3X	11.76	51.0	74.51	84.97	1.11	10.46	2.29	.65	1.11	1.57	1.96	3.92	3.27	4.38	7.84	.85	6.54	25.49	50.98	1.83	17.65	1.31	12.09	50.98	74.51	-
4X	10.34	44.8	65.52	74.71	.98	9.20	2.01	.57	.98	1.38	1.72	3.45	2.87	3.85	6.90	.75	5.75	22.41	44.83	1.61	15.52	1.15	10.63	44.83	65.52	-
5X	8.53	37.0	54.03	61.61	.81	7.58	1.66	.47	.81	1.14	1.42	2.84	2.37	3.18	5.69	.62	4.74	18.48	36.97	1.33	12.80	.95	8.77	36.97	54.03	-
6X	6.84	29.7	43.35	49.43	.65	6.08	1.33	.38	.65	.91	1.14	2.28	1.90	2.55	4.56	.49	3.80	14.83	29.66	1.06	10.27	.76	7.03	29.66	43.35	-
7X	6.10	26.4	38.64	44.07	.58	5.42	1.19	.34	.58	.81	1.02	2.03	1.69	2.27	4.07	.44	3.39	13.22	26.44	.95	9.15	.68	6.27	26.44	38.64	-
8X	5.29	22.9	33.53	38.24	.50	4.71	1.03	.29	.50	.71	.88	1.76	1.47	1.97	3.53	.38	2.94	11.47	22.94	.82	7.94	.59	5.44	22.94	33.53	-
9X	4.39	19.0	27.80	31.71	.41	3.90	.85	.24	.41	.59	.73	1.46	1.22	1.63	2.93	.32	2.44	9.51	19.02	.68	6.59	.49	4.51	19.02	27.80	-
EXTENDED EYE RELIEF																										
2X	14.2	-	-	-	1.34	-	2.76	.79	1.34	1.89	2.36	4.72	3.94	5.28	9.45	-	-	-	-	-	-	-	-	-	-	-
2.5X	9.00	-	-	-	.85	-	1.75	.50	.85	1.20	1.50	3.00	2.50	3.35	6.00	-	-	-	-	-	-	-	-	-	-	-
4X	6.29	-	-	-	.59	-	1.22	.35	.59	.84	1.05	2.10	1.75	2.34	4.20	-	-	-	-	-	-	-	-	-	-	-
6X	3.91	-	-	-	.37	-	.76	.22	.37	.52	.65	1.30	1.09	1.46	2.61	-	-	-	-	-	-	-	-	-	-	-
8X	3.03	-	-	-	.29	-	.59	.17	.29	.40	.50	1.01	.84	1.13	2.02	-	-	-	-	-	-	-	-	-	-	-
MARK 4																										
6X	-	-	-	-	.52	4.91	1.07	.31	.52	.74	.92	1.84	1.53	2.06	3.68	-	-	-	-	-	-	-	-	-	-	-
10X	-	-	-	-	.31	2.93	.64	.18	.31	.44	.55	1.10	.92	1.23	2.20	-	-	-	-	-	-	-	-	-	-	-
16X	-	-	-	-	.20	1.86	.41	.12	.20	.28	.35	.70	.58	.78	1.40	-	-	-	-	-	-	-	-	-	-	-
20X	1.67	7.24	10.58	12.06	.16	1.48	.32	.09	.16	.22	.28	.56	.46	.62	1.11	.12	.93	3.62	7.24	.26	2.50	.19	1.72	7.24	10.58	12.06
24X	1.35	5.86	8.57	9.77	.13	1.20	.26	.08	.13	.18	.23	.45	.38	.50	.90	.10	.75	2.93	5.86	.21	2.03	.15	1.39	5.86	8.57	9.77
32X	.98	4.24	6.20	7.07	.09	.87	.19	.05	.09	.13	.16	.33	.27	.36	.65	.07	.54	2.12	4.24	.15	1.47	.11	1.01	4.24	6.20	7.07

(1) Three "C" dimensions are offered. Specify when ordering.

(2) Two style No. 3 reticles are offered. Maximum and minimum sizes for each style are shown. .0017, .0024, .003, and .0067 dots are "off the shelf" sizes. Custom sizes may be ordered that fall between the maximum and minimum.

(3) Three "C' dimension openings are offered. "Cc" can be installed only in VariX-III scopes. "Cb" is available in Vari X-II, III, fixed power or compact/rimfire. "Ca" can be installed only in Vari X-II, fixed power or compact/rimfire scopes. Specify when ordering.

RETICLE SUBTENSIONS (continued)

	#5									#6			#7				#9				#10 (5)				
	Fine			Medium			Heavy						Fine		Medium				Sm.	Lg.					
										.00015	.00045	.0010							.0035	.0060					
Mag.	A	B	C	A	B	C	A	B	C	Targ.	Fine	Med.	A	B	A	B	A	B	D	D	A	B	C	D	E
VARI X-III, VARIX-II AND FIXED POWER																									
1X	.92	3.68	39.47	1.6	4.87		3.95	10.5		.197	.592	1.32	.92	3.68	1.71	4.87	.92	3.68	4.61	7.89	1.3	24.3	247	6.18	24.9
1.5X	.89	3.54	37.97	1.5	4.68		3.80	10.1		.190	.570	1.27	.89	3.54	1.65	4.68	.89	3.54	4.43	7.59	1.3	23.4	238	5.95	23.9
1.75X	.70	2.80	30.00	1.2	3.70		3.00	8.00		.150	.450	1.00	.70	2.80	1.30	3.70	.70	2.80	3.50	6.00	1.0	18.5	188	4.70	18.9
2X	.54	2.15	23.08	.92	2.85		2.31	6.15		.115	.346	.769	.54	2.15	1.00	2.85	.54	2.15	2.69	4.62	.77	14.2	145	3.62	14.5
2.5X	.50	2.00	21.43	.86	2.64		2.14	5.71		.107	.321	.714	.50	2.00	.93	2.64	.50	2.00	2.50	4.29	.71	13.2	134	3.36	13.5
3X	.47	1.87	20.00	.80	2.47		2.00	5.33		.100	.300	.667	.47	1.87	.87	2.47	.47	1.87	2.33	4.00	.67	12.3	125	3.13	12.6
3.5X	.37	1.50	16.04	.64	1.98		1.60	4.28		.080	.241	.535	.37	1.50	.70	1.98	.37	1.50	1.87	3.21	.53	9.89	101	2.51	10.1
4X	.32	1.27	13.64	.55	1.68		1.36	3.64		.068	.205	.455	.32	1.27	.59	1.68	.32	1.27	1.59	2.73	.45	8.41	85.45	2.14	8.59
4.5X	.25	.98	10.53	.42	1.30		1.05	2.81		.053	.158	.351	.25	.98	.46	1.30	.25	.98	1.23	2.11	.35	6.49	65.96	1.65	6.63
5X	.23	.90	9.68	.39	1.19		.97	2.58		.048	.145	.323	.23	.90	.42	1.19	.23	.90	1.13	1.94	.32	5.97	60.65	1.52	6.10
6X	.21	.85	9.09	.36	1.12		.91	2.42		.045	.136	.303	.21	.85	.39	1.12	.21	.85	1.06	1.82	.29	2.94	34.38	.86	3.43
6.5X	.21	.82	8.82	.35	1.09		.88	2.35		.044	.132	.294	.21	.82	.38	1.09	.21	.82	1.03	1.76	.29	5.44	55.29	1.38	5.56
7X	.19	.78	8.33	.33	1.03		.83	2.22		.042	.125	.278	.19	.78	.36	1.03	.19	.78	.97	1.67	.28	5.14	52.22	1.31	5.25
8X	.17	.68	7.32	.29	.90		.73	1.95		.037	.110	.244	.17	.68	.32	.90	.17	.68	.85	1.46	.24	2.44	34.38	.86	3.43
8.5X	.16	.64	6.82	.27	.84		.68	1.82		.034	.102	.227	.16	.64	.30	.84	.16	.64	.80	1.36	.23	4.20	42.73	1.07	4.30
9X	.15	.61	6.58	.26	.81		.66	1.75		.033	.099	.219	.15	.61	.29	.81	.15	.61	.77	1.32	.22	2.19	34.38	.86	3.43
10X	.13	.51	5.45	.22	.67		.55	1.45		.027	.082	.182	.13	.51	.24	.67	.13	.51	.64	1.09	.18	3.27	34.38	.86	3.43
11X	.12	.47	5.00	.20	.62		.50	1.33		.025	.075	.167	.12	.47	.22	.62	.12	.47	.58	1.00	.17	3.08	31.33	.78	3.15
12X	.11	.43	4.63	.19	.57		.46	1.23		.023	.069	.154	.11	.43	.20	.57	.11	.43	.54	.93	.15	1.54	34.38	.86	3.43
14X	.09	.37	3.93	.16	.48		.39	1.05		.020	.059	.131	.09	.37	.17	.48	.09	.37	.46	.79	.13	2.35	34.38	.86	3.43
16X	.08	.31	3.30	.13	.41		.33	.88		.016	.049	.110	.08	.31	.14	.41	.08	.31	.38	.66	.11	2.03	20.66	.52	2.08
18X	.08	.31	3.29	.13	.41		.33	.88		.016	.049	.110	.08	.31	.14	.41	.08	.31	.38	.66	.11	2.03	20.59	.51	2.07
20X	.06	.26	2.78	.11	.34		.28	.74		.014	.042	.093	.06	.26	.12	.34	.06	.26	.32	.56	.09	1.71	17.41	.44	1.75
24X	.06	.23	2.42	.10	.30		.24	.65		.012	.036	.081	.06	.23	.10	.30	.06	.23	.28	.48	.08	1.49	15.16	.38	1.52
25X	.05	.22	2.33	.09	.29		.23	.62		.012	.035	.078	.05	.22	.10	.29	.05	.22	.27	.47	.08	1.43	14.57	.36	1.47
36X	.04	.15	1.61	.06	.20		.16	.43		.008	.024	.054	.04	.15	.07	.20	.04	.15	.19	.32	.05	.99	10.11	.25	1.02
40X	.03	.14	1.45	.06	.18		.14	.39		.007	.022	.048	.03	.14	.06	.18	.03	.14	.17	.29	.05	.89	9.08	.23	.91
50X	.03	.11	1.21	.05	.15		.12	.32		.006	.018	.040	.03	.11	.05	.15	.03	.11	.14	.24	.04	.75	7.61	.19	.77
COMPACT																									
2.5X IER	.40	1.61	17.24	.69	2.13		1.72	4.60		.086	.259	.575	.40	1.61	.75	2.13	.40	1.61	2.01	3.45	.57	10.63	108.0	2.70	10.86
2X	.58	2.33	25.00	1.00	3.08		2.50	6.67		.125	.375	.833	.58	2.33	1.08	3.08	.58	2.33	2.92	5.00	.83	15.42	156.7	3.92	15.75
2.5X	.63	2.50	26.79	1.07	3.30		2.68	7.14		.134	.402	.893	.63	2.50	1.16	3.30	.63	2.50	3.13	5.36	.89	16.52	167.9	4.20	16.88
3X	.46	1.83	19.61	.78	2.42		1.96	5.23		.098	.294	.654	.46	1.83	.85	2.42	.46	1.83	2.29	3.92	.65	12.09	122.9	3.07	12.35
4X	.40	1.61	17.24	.69	2.13		1.72	4.60		.086	.259	.575	.40	1.61	.75	2.13	.40	1.61	2.01	3.45	.57	10.63	108.0	2.70	10.86
5X	.33	1.33	14.22	.57	1.75		1.42	3.79		.071	.213	.474	.33	1.33	.62	1.75	.33	1.33	1.66	2.84	.47	8.77	89.10	2.23	8.96
6X	.27	1.06	11.41	.46	1.41		1.14	3.04		.057	.171	.380	.27	1.06	.49	1.41	.27	1.06	1.33	2.28	.38	7.03	71.48	1.79	7.19
7X	.24	.95	10.17	.41	1.25		1.02	2.71		.051	.153	.339	.24	.95	.44	1.25	.24	.95	1.19	2.03	.34	6.27	63.73	1.59	6.41
8X	.21	.82	8.82	.35	1.09		.88	2.35		.044	.132	.294	.21	.82	.38	1.09	.21	.82	1.03	1.76	.29	5.44	55.29	1.38	5.56
9X	.17	.68	7.32	.29	.90		.73	1.95		.037	.110	.244	.17	.68	.32	.90	.17	.68	.85	1.46	.24	4.51	45.85	1.15	4.61
EXTENDED EYE RELIEF																									
2X	-	-	-	.94	2.9	-	-	-	-	.118	.354	.787	-	-	-	-	-	-	-	-	-	-	-	-	-
2.5X	-	-	-	.60	1.9	-	-	-	-	.075	.225	.500	-	-	-	-	-	-	-	-	-	-	-	-	-
4X	-	-	-	.42	1.29	-	-	-	-	.052	.157	.350	-	-	-	-	-	-	-	-	-	-	-	-	-
6X	-	-	-	.26	.80	-	-	-	-	.033	.098	.217	-	-	-	-	-	-	-	-	-	-	-	-	-
8X	-	-	-	.20	.62	-	-	-	-	.025	.076	.168	-	-	-	-	-	-	-	-	-	-	-	-	-
MARK 4																									
6X	-	-	-	.37	1.13	-	-	-	-	.046	.138	.307	-	-	-	-	-	-	-	-	.31	3.07	34.38	.86	3.43
10X	-	-	-	.22	.68	-	-	-	-	.027	.082	.183	-	-	-	-	-	-	-	-	.18	3.39	34.38	.86	3.43
16X	-	-	-	.14	.43	-	-	-	-	.017	.052	.117	-	-	-	-	-	-	-	-	.12	2.16	34.38	.86	3.43
20X	.06	.26	2.78	.11	.34	-	.28	.74	-	.014	.042	.093	.06	.26	.12	.34	.06	.26	.32	.56	.09	1.72	34.38	.86	4.34
24X	.05	.21	2.26	.09	.28	-	.23	.60	-	.011	.034	.075	.05	.21	.10	.28	.05	.21	.26	.45	.08	1.39	14.14	.35	1.42
32X	.04	.15	1.63	.07	.20	-	.16	.43	-	.008	.024	.054	.04	.15	.07	.20	.04	.15	.19	.33	.05	1.01	10.22	.26	1.03

VARIES DEPENDING ON DUPLEX USED

VARIES DEPENDING ON DUPLEX USED

(5) All dimensions shown are for a 3.5X-10X mil-dot reticle installed, except for 6X, 8X, 12X, 14X, Mark 4 6X, 16X, 10X and 20X.

Description of Accessories

ScopeSmith Lens Shades

NEW for 1999 are 12 lens shades redesigned to allow the shades to screw together. In 2.5" and 4" lengths. Older design sunshades can be used with new design. Available in 40mm and 50mm.

50mm lens shades are available in two outside diameters. 2.295" for side focus 50mm or 50mm non-AO scopes. 2.370" diameter is designed for the 50mm AO scopes and 50mm spotting scopes. Be sure to specify what scope you have when ordering.

The 40mm AO sunshades will fit ONLY the adjustable objective 40mm scopes. They will not fit non-AO 40mm scopes or any of the Mark 4 scopes. A 2.5" long Mark 4 sunshade is available.

Anti-Reflective Device (ARD)

NEW for 1999. A honeycomb device that snaps into 40mm scopes that are non-threaded and non-adjustable...takes the place of sunshades and are as effective as a 7" shade.

ScopeSmith 50 Foot Adapters & Close Focus Lens

50 foot adapter is an accessory that screws into the objective end of 40mm adjustable objective scopes. It will allow the scope to be used at 50 feet, plus or minus a few feet. It is not needed on BR, BR-D or EFR scopes. These models will focus down to 50 feet.

A 50mm Close Focus lens mounted in a Butler Creek Lens cover is now offered to allow the side focus 50mm scopes to focus down to 50 feet. The same lens when used with our close focus modification shown on page 3 further increases focus range for air gun use.

ScopeSmith Lens Cleaning System and Ring Wrench

The handy lens pen that is about the size of a pen has a soft retractable brush on one end and a chamois cleaning tip impregnated with a special non-liquid cleaning compound that is replenished each time the cap is replaced.

If you install the standard or dual dovetail twist-in rings frequently the inexpensive Ring Wrench will prevent damage to the scope tube while installing. For both 1" and 30mm rings.

ScopeSmith Mounting Tool

A useful tool featuring one slotted (1/4") screwdriver, two Torx drivers (T-15 & T-25) and five hex head drivers (.050", 1/16, 3/32, 9/64 & 1/8"). Tools fold-up into a handy handle. Can be used to make windage & elevation adjustments or installing rings and mount bases.

Leupold Torx Screw Kit

A kit containing a total of 120 Torx head ring and base screws. 20 each of the following. Black and Silver 8-40 x .278", 6-48 x .210", 6-48 x .295".

Mark 4 Rings and Badger Rings Torque Wrench

To assure proper clamping pressure it is suggested the clamp nuts, holding the rings to the bases, be torqued to 65 inch pounds. They should also be re-torqued periodically. A T-handle wrench with a 3/8" driver. Use with a 1/2" socket. Small enough to keep with your gun gear.

Leupold Tripods

Two different tripods are available. They both have the standard 1/4" -20 threaded mount that will hold all spotting scopes or cameras. Packer tripod has three solid legs and is approximately 11 inches tall and weighs 9 ounces. The tripod breaks down and can be carried in a small black bag that you can slip onto your belt to carry in the field. Head is ball and socket.

Compact tripod is 13.5" tall folded and 30" with the telescoping legs extended. Head is ball and socket. Weight is 26.5 oz.

Lens Covers

Two style lens covers are offered to protect your optics.

Inexpensive, soft, black vinyl covers are available for all Leupold scopes except 20mm objectives. Protects lenses during transportation and cleaning.

Butler Creek flip-up covers are offered for all Leupold scopes. Also available to fit sunshades that maybe a different diameter than the objective end of the scope...specify. Not available for LPS scopes that come with lens covers.

If you expect to be using the Butler Creek Sunshields, the objective lens covers will be needed to hold the sunshield in place against the objective end of the scope. You may order only the objective cover.

When ordering lens covers be sure to mention if the scope has an adjustable objective or not and if it is a compact or Extended Eye Relief scope.

Butler Creek Sunshields

Originally designed for the military to prevent light from reflecting off the objective lenses of rifle scopes and binoculars. The 1/4 inch thick honeycomb design also doubles as a sunshade that would be up to 7.5 inches long.

If you have any of the Butler Creek covers purchased since mid 1996 in the following sizes they will accept the sunshields. Easy to install they snap in objective cover. 5 sizes.

Objective cover 25, 26 and 27 hold #7 sunshield. Objective lens cover 28, 29, 30 and 31 hold #8 sunshield, 33 holds #9 and 43 holds #10. Objective cover 44, 45, 46, 47 and 48 hold #11 shield.

Field case for 25X and 12X-40X Spotting cases

Two professionally made cases with 1/4 and 3/8 inch closed-cell foam padding are offered that provide maximum protection while in the field. Made with olive drab or black (specify color when ordering) 1000 denier Cordura fabric. A buckled snap openness on the bottom to allow the spotting scope to be used on a tripod without removing it from the case.

On the eyepiece end of the 12X-40X case a zipper opens and Velcro retains flaps against the body of the case during use. The 25X case utilizes a fabric cup that protects the eyepiece while not in use. The objective end of both cases have snaps for quick access. Cases have two "D" rings so they can be carried using a utility strap.

Side Wheel for Side Focus Airgun Scopes

Designed to attach to the side focus knob with set screws it is 3.2" in diameter and 7/16" wide. It comes with a user attached peel off decal with two sets of numbers starting at 8 and going to 20 in 1 increments and 20 to 100 in 5 increments.

Target Turrets

Target style turrets may be installed on ANY Leupold scope except for Mark 4 and LPS. They are available only in the standard height that is approximately 1 inch tall.

Turrets may be added to elevation only or to both elevation and windage. Click values of the turrets may vary from the standard 1/4 minute clicks offered on the Leupold target scopes. Please see the Leupold Scope Specifications chart for "optional target turret click values" if turrets would be installed on any Leupold scope made since about 1980 and having serial numbers with a letter in the number. If the click value shown is too fine another pitch mechanism could be installed that is 50% coarser if you specify when ordering.

Turrets may also be installed on pre 1980 Leupold scopes but click values will be much more coarse than those shown in the table. Call to inquire.

Two style knobs are offered. One is straight and has a dust cover. The second style is a larger, tapered knob that does not have a dust cover. Neither style offers better sealing to the scope. All seals are in the turret mechanism.

Both knobs have 60 small marks on the circumference with main marks every 4 small marks. Each small mark equals the click value shown in the table. The small knob has numbering 0, 3, 6, 9 and 12 while the tapered knob has numbering 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14 at the main marks. Unless specified we will install the straight knob with the dust cover. Finish of the cover will match the finish of your scope.

Prices shown for turrets are for one style knob only that you specify. If extra knobs are needed they are available at extra cost. All turrets are Leupold OEM parts.

Coin Click Adjustments

Coin click adjustments are available for any Leupold scope having the coin friction type adjustments. These include EER, Compact, Fixed power and Vari X-II models. These are the same style that come on all Vari X-III scopes.

One or both adjustments may be added to your scope or any new scope you may be purchasing.

Click values of the coin adjustments would be 50% greater than those shown in the Leupold Scope Specifications chart under values shown for optional target turrets..

Parallax

Parallax is caused by the image projected by the objective lens system focusing either in front of the reticle or behind it. When the image is focused on the reticle you are parallax free.

You know you have parallax, if when you move your head around in the field of view, the reticle moves off your aiming point.

Adjustable objective scopes will focus the image exactly on the reticle and eliminate parallax errors. Non adjustable objective scopes are preset at one distance, usually 150 yards.

Parallax may be reset to a distance you feel more appropriate if

necessary. Rule-of-thumb we use is first determine maximum distance you will shoot. From that distance deduct 20%. This would be best parallax setting.

An example of when you would do this would be if you want to set-up any non-AO for rimfire. This can include any compact or full-size scope. It could be set to 60 yards or any other distance you feel more appropriate.This may be done on *ANY* non adjustable objective Leupold scope.
Some adjustable objective scopes can have the focus modified so they can focus in to slightly closer distances. If a 6.5X20 40mm AO, 8.5X25 40mm AO or 12X AO was modified to focus down to about 25 yards, the maximum distance would become about 100 yards. Resetting the focus under 25 yards is not recommended because maximum focus capability is seriously limited.

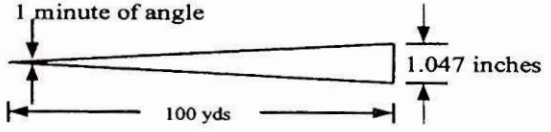
You should be aware of the influence of temperature variations on any scope with or without an adjustable objective.

The lens spacing on any scope will change as the temperature changes because the scope tube is aluminum. When the parallax is originally set it is done at room temperature. If your scope has an adjustable objective and you find the setting reading different than the actual distance it is not reason for concern.

You can be certain parallax is set properly when you move your head in the field of view and the reticle does not move relative to the aiming point. It doesn't make any difference if the scale reading is off.

Minute of Angle Explained

Minute of angle is a trigonometric function and is commonly used when referring to reticles and what they subtend (cover). Moa and minute is a shortened version of minute of angle.



If one was to draw a triangle with one leg 100 yards long and with an angle of 1 minute (1/60th of a degree) then the leg of the triangle at 100 yards would measure exactly 1.047 inches. Most people will round off the 1.047 inches to 1 inch because it is easier to work with and in most cases is close enough. At 50 yards 1 MOA is .524 inches. Beyond 100 yards 1 moa will equal 2.094 inches at 200 yards, 3.141 inches at 300 yards, 10.47 inches at 1000 yards, .175 inches at 50 feet, .26 inches at 20 yards or 5.73 inches at 500 meters.

MOA says it all. It is improper to use a distance along with moa. For example it is not correct to say "I want a 1 moa dot at 300 yards". A 1 moa dot will cover 3 inches at 300 yards. If you wanted a dot that covered 3 inches at 300 yards then you would say "I want a 3 inch dot at 300 yards" or "I want a 1 moa dot".

Minute of Angle Formulas

There are two very useful formulas to use if you want to convert MOA to inches or convert inches to MOA.

MOA = (inches/yards) times 95.49.

INCHES = (MOA/95.49) times yards.

Here are a couple of examples of how the formulas could be used.

Example 1. Suppose you are hunting prairie dogs and you are considering having a dot installed in a 6.5X20 scope. You expect to be taking shots to 800 yards and need to calculate the best size dot.

Taking the width of a prairie dog head of about 1.5" then MOA= (1.5/800) X 95.49. Answer would be .179 moa.

Any dot .179 moa or larger, at 800 yards, would be about the maximum size that could be used. Using the reticle subtension table the smallest we could install is .09 moa at 20X.

Example 2. You have a fine duplex in a 6.5X20 scope and want to know what the opening will equal in inches at 400 yards.

A fine duplex opening, "C", is 2.69 moa at 20X. Inches at 400 yards using the formula would be Inches = (2.69/95.49) X 400. Answer would be 11.27 inches.

Example 3. You want an 1/8 inch dot at 50 feet. What size do you order? MOA = (.125/16.7) X 95.49. Answer is .71 moa.

Always convert distance into yards before using the formula.

Services not offered by Premier Reticles

Below are listed some services or modifications to scopes and reticles we do not provide.

- Reticle changes are offered ONLY in Leupold scopes.
- Glass reticles or reticles with short lines or hash marks,

numbers or circles are not offered..

- Dots cannot be added to Duplex (except diamond dot), CPC style reticles or any other style reticle except the #3, #6 or #10a reticle.
- Short lines, hash marks or tick marks cannot be added to ANY reticle.
- Reticles cannot be installed in spotting scopes or binoculars.
- Power boosts are available only to customer supplied 36X scopes to 40X only.
- Power boosts to other fixed power, Vari X-II or Vari X-III variable scopes are NOT offered on customer scopes sent to us. This includes spotting scopes, binoculars and Mark 4 scopes.
- The magnification cannot be decreased on scopes, spotting scopes or binoculars.
- Eye-relief cannot be increased or decreased on any rifle scope, pistol scope or spotting scope.
- Mark 4 turrets cannot be installed on 1" tube scopes.
- Lighted or colored reticles cannot be installed.
- Larger objective lenses cannot be retro-fitted.
- Mil-dot reticles with custom spacing are not available.
- We do not repair, refinish or recondition scopes.
- Lenses cannot be refinished or be multi-coated.
- Target style turrets, with click values shown in the Leupold Scope Specification table under "Optional target turret click value" can be installed on all 1 inch tube scopes.
- We do not buy used scopes or take trade-in scopes.
- M3 style turrets cannot be installed on M1 scopes or on any 1 inch tube scope.
- We are not a Leupold repair center.

Delivery time

Delivery times have been improved compared to previous years. Because we no longer do power boosts on customers individual scopes we have been able to concentrate on working on larger quantities of the power boosts ahead of time.

If you send your scope to us for a simple reticle change or target turrets allow one to two days from receipt. For custom reticles including dot systems and multiple lines allow up to one week from receipt. Please allow time in transit. You may send your scope to us by any method convenient for you. Insure any U.S. Postal Service parcels. Scopes sent to and from the west coast take 7-10 days by UPS ground in both directions. If you are in a hurry send the scope to us via an air method and ask for it to be returned by air.

New scopes and conversions take 1 to 7 days depending on any custom reticle being ordered. Many scopes with standard reticles and/or target turrets installed ship the same day.

Payment terms

For orders under $150 personal checks sent with your scope are acceptable. Virginia customers include 4.5% sales tax.

We accept Visa, MasterCard or Discover. No additional charge for using your credit card. Include expiration date and a daytime phone number. COD's accepted on U.S. orders only. COD's will be shipped Cashiers Check or Money Order accepted.

All orders being sent outside the United States must be prepaid. Credit cards are accepted. Bank checks in U.S. funds must be drawn against any U.S. bank.

Foreign wire transfers are acceptable Call for details.

Scope Warranty, Reticle Warranty & Returns

The original, lifetime Leupold scope warranty is not voided when Premier Reticles installs reticles or target turrets. Should you have a problem with the scope it should be returned to the

Leupold Repair department
14400 N.W. Greenbrier Pkwy
Beaverton, OR 97006
(503) 526-1400

All reticles installed by Premier Reticles in any Leupold scope carry our lifetime warranty.

Any Leupold scope that we have power boosted has the lifetime Premier Reticle warranty. Because of the nature of the power conversion if you should have a problem with the scope it should be returned to Premier Reticles...not Leupold. If we cannot correct any problems we will return the scope to the original power and send the scope to Leupold.

We will repair or replace, at our option, any scope returned to us for warranty inspection. It will be returned to you by the most economical method. Additional air shipping is at the customers expense.

Any scope or accessory may be returned (if unused/unmarked) with original packaging for a refund/credit less shipping and tax. All returns are subject to a 10% restocking fee. Non-standard or custom reticles are not refundable. "Unused/unmarked" condition is subject to our inspection and approval.

Inches =	6	9	12	14	16	18	20	22	24	28	32	36	60	66	69	72
Yards =	167	250	333	389	444	500	556	611	667	778	889	1000	1667	1833	1917	2000
MILS 3/4	222	333	444	519	593	667	741	815	889	1037	1185	1333	2222	2444	2556	2667
MILS 1	167	250	333	389	444	500	556	611	667	778	889	1000	1667	1833	1917	2000
MILS 1-1/4	133	200	267	311	356	400	444	489	533	622	711	800	1333	1467	1534	1600
MILS 1-1/2	111	167	222	259	296	333	370	407	444	519	593	667	1111	1222	1278	1333
MILS 1-3/4	95	143	190	222	254	286	317	349	381	444	508	571	952	1048	1095	1143
MILS 2	83	125	167	194	222	250	278	306	333	389	444	500	833	917	959	1000
MILS 2-1/4	74	111	148	173	198	222	247	272	296	346	395	444	741	815	852	889
MILS 2-1/2	67	100	133	156	178	200	222	244	267	311	356	400	667	733	767	800
MILS 2-3/4	61	91	121	141	162	182	202	222	242	283	323	364	606	667	697	727
MILS 3	56	83	111	130	148	167	185	204	222	259	296	333	556	611	639	667
MILS 3-1/4	51	77	103	120	137	154	171	188	205	239	274	308	513	564	590	615
MILS 3-1/2	48	71	95	111	127	143	159	175	190	222	254	286	476	524	548	571
MILS 3-3/4	44	67	89	104	119	133	148	163	178	207	237	267	444	489	511	533
MILS 4	42	63	83	97	111	125	139	153	167	194	222	250	417	458	479	500
MILS 4-1/4	39	59	78	92	105	118	131	144	157	183	209	235	392	431	451	471
MILS 4-1/2	37	56	74	86	99	111	123	136	148	173	198	222	370	407	426	444
MILS 4-3/4	35	53	70	82	94	105	117	129	140	164	187	211	351	386	404	421
MILS 5	33	50	67	78	89	100	111	122	133	156	178	200	333	367	383	400
MILS 5-1/4	32	48	63	74	85	95	106	116	127	148	169	190	317	349	365	381
MILS 5-1/2	30	45	61	71	81	91	101	111	121	141	162	182	303	333	349	364
MILS 5-3/4	29	43	58	68	77	87	97	106	116	135	155	174	290	319	333	348
MILS 6	28	42	56	65	74	83	93	102	111	130	148	167	278	306	320	333
MILS 6-1/4	27	40	53	62	71	80	89	98	107	124	142	160	267	293	307	320
MILS 6-1/2	26	38	51	60	68	77	85	94	103	120	137	154	256	282	295	308
MILS 6-3/4	25	37	49	58	66	74	82	91	99	115	132	148	247	272	284	296
MILS 7	24	36	48	56	63	71	79	87	95	111	127	143	238	262	274	286
MILS 8	21	31	42	49	56	63	69	76	83	97	111	125	208	229	240	250
MILS 9	19	28	37	43	49	56	62	68	74	86	99	111	185	204	213	222
MILS 10	17	25	33	39	44	50	56	61	67	78	89	100	167	183	192	200

USING THE TABLE

1) Estimate the size of the object (to be range estimated) and locate across the top of the table.
2) Measure the height or width of the object in mils with the mil-dot reticle. Locate down the left side.
3) Move down from the top and right from the side to find the distance in yards.
4) To estimate objects one-half the size of those shown in the table, halve table values for the distance.
5) To estimate objects twice the size of those shown in the table, double table values for the distance.
6) A 10X mil-dot reticle installed in a 6.5X20X or 8.5X-25X scope has 1 mil spacing at 10X and 1/2 mil spacing at 20X. When either scope is set at 20X it will double the table values for distance. The power ring on these scopes is collimated at the appropriate 1 mil and 1/2 mil spacing.
7) Using a 4.5X-14X scope set at 7X or 3.5X-10X set at 5X halves the table values for the distance.

MIL FORMULA

$$\frac{\text{Height or width of object (in yards)} \times 1000}{\text{Height or width of object (in mils)}} = \text{Distance (in yards)}$$

$$\frac{\text{Height or width of object (in meters)} \times 1000}{\text{Height or width of object (in mils)}} = \text{Distance (in meters)}$$

PREMIER RETICLES - 920 BRECKINRIDGE LANE - WINCHESTER, VA 22601
(540) 722-0601 - FAX (540) 722-3522 - E-MAIL reticles@shentel.net

LEUPOLD SCOPE SPECIFICATIONS

	Actual Magnification	Field of View at 100 yards	Eye Relief	Clear Objective Lens Diameter	Outside Objective Diameter	Outside Ocular Diameter	Tube Diameter	Length	Weight (3)	Standard Adjustment Type	Standard Adjust. Increments	Optional Target Turret Click Value	Maximum Internal Adjustment(2)	Focus Capability	Maximum Mount Ring Spacing
	Low/High	Feet	Inches	MM	Inches	IN.		Inches	Oz.		MOA	MOA	MOA		IN.
LPS															
1.5X6 42mm	1.5 / 6	58.7 / 15.7	4.0	42	1.96	1.75	30mm	11.25	17	click	1/4	-	80	150yds	5.4
3.5X14 52mm AO	3.5 / 14	28 / 7.2	4.0	52	2.44	1.75	30mm	13	23	click	1/4	-	60	50y to inf.	5.7
Vari X-III															
1.5X5 20mm	1.5 / 4.5	66 / 23	5.3 / 3.7	20	.998	1.55	1in	9.32	9.5	coin click	1/4	.389	115	150yds	5.5
1.75X6 32mm (DISC)	1.9 / 5.6	47 / 18	4.8 / 3.7	32	1.642	1.55	1in	9.8	11	coin click	1/4	.356	99	150yds	4.62
1.75X6 E 32mm	1.9 / 5.6	47 / 18	4.8 / 3.7	32	1.555	1.55	1in	11.17	10.9	coin click	1/4	.356	66	150yds	5.4
2.5X8 36mm	2.6 / 7.8	37 / 13.5	4.7 / 3.7	36	1.642	1.55	1in	11.3	11.5	coin click	1/4	.243	63	150yds	5.1
3.5X10 40mm	3.3 / 9.7	29.5 / 10.7	4.6 / 3.6	40	1.825	1.55	1in	12.5	12.6	coin click	1/4	.250	51	150yds	5.8
3.5X10 50mm	3.3 / 9.7	29.5 / 10.7	4.6 / 3.6	50	2.294	1.55	1in	12.0	14.9	coin click	1/4	.250	51	150yds	5.1
3.5X10 50mm AO (Disc)	3.3 / 9.7	29.5 / 10.7	4.6 / 3.6	50	2.578	1.55	1in	12.0	16.0	coin click	1/4	.250	51	15y to inf.	5.1
4.5X14 40mm AO	4.7 / 13.7	20.8 / 7.4	5.0 / 3.7	40	2.037	1.55	1in	12.4	14.5	coin click	1/4	.250	63	25y to inf.	5.4
4.5X14 50mm AO	4.7 / 13.7	20.8 / 7.4	5.0 / 3.7	50	2.464	1.55	1in	12.0	16.6	coin click	1/4	.250	63	25y to inf.	5.4
6.5X20 40mm AO	6.5 / 19.2	14.2 / 5.5	5.3 / 3.6	40	2.037	1.55	1in	14.2	15.4	coin click	1/4	.250	48	50y to inf.	6.5
6.5X20 40mm EFR	6.5 / 19.2	14.2 / 5.5	5.3 / 3.6	40	2.043	1.55	1in	14.2	17.3	targ. click	1/4	-	48	10m to inf.	6.5
6.5X20 50mm AO	6.5 / 19.2	14.2 / 5.5	5.3 / 3.6	50	2.485	1.55	1in	14.4	19	coin click	1/4	.250	48	50y to inf.	5.5
8.5X25 40mm AO	8.5 / 25	10.86 / 4.2	5.3 / 3.6	40	2.037	1.55	1in	14.37	15.3	coin click	1/4	.250	48	50y to inf.	6.8
Vari X-III Side Focus															
3.5X10 40mm M3	3.9 / 9.7	29.8 / 11.0	4.0 / 3.5	40	1.825	1.55	30mm	13.5	19.5	click	(1)	-	65	50y to inf.	6.2
3.5X10 40mm M1	3.9 / 9.7	29.8 / 11.0	4.0 / 3.5	40	1.825	1.55	30mm	13.5	19.5	targ. click	1/4	-	90	50y to inf.	6.2
4.5X14 50mm Tactical	4.9 / 14.3	19.0 / 6.0	5.0 / 3.7	50	2.294	1.55	30mm	12.1	17.5	targ. click	1/4	-	90	50y to inf.	5.5
6.5X20 50mm L.R. Target	6.8 / 19.2	14.5 / 5.4	5.3 / 3.6	50	2.294	1.55	30mm	14.3	19	targ. click	1/4	-	90	50y to inf.	6.5
8.25X25 50mm L.R. Target	8.3 / 24.2	11.4 / 4.3	4.4 / 3.6	50	2.294	1.55	30mm	14.3	19	targ. click	1/4	-	72	50y to inf.	6.5
Benchrest															
24X 40mm AO	24.0	4.7	3.2	40	2.09	1.55	1in	13.66	15.3	targ. click	1/4	.250	55	50ft to inf.	6.3
36X 40mm AO	36.0	3.2	3.4	40	2.09	1.55	1in	14.14	15.6	targ. click	1/4	.250	60	50ft to inf.	6.8
Mark 4															
M3-6X 40mm (Disc)	6.0	18	4.5	40	1.962	1.68	30mm	13.1	20.2	click	(1)	-	75 elev.	15y to inf.	5.9
M3-10X 40mm	10.0	11.1	3.4	40	1.962	1.68	30mm	13.1	20.2	click	(1)	-	72 elev.	15y to inf.	6.1
M1-10X 40mm	10.0	11.1	3.4	40	1.962	1.68	30mm	13.1	21.5	targ. click	1/4	-	90 elev.	15y to inf.	6.1
M1-16X 40mm	15.9	6.6	4.0	40	1.962	1.68	30mm	13.0	21.1	targ. click	1/4	-	140 elev.	15y to inf.	6
Extended Eye Relief															
2X 20mm	1.7	21.2	12-24	20	.998	1.36	1in	7.9	6.0	coin fnct.	1	.607	167	100yds	5.1
4X 28mm	3.7	9.0	12-24	28	1.361	1.37	1in	8.4	7.0	coin fnct.	1	.373	113	100yds	4
2.5X8 32mm	2.55 / 8.0	13 / 4.3	12-24	32	1.642	1.69	1in	9.7	10.9	coin fnct.	1	.607	80	100yds	4.1
Gilmore Red Dot Sight															
LG 1	1	45	unlimited	-	-	-	1in	4.5	4.0	click	1/3	-	-	unlimited	-
LG 35	1	70	unlimited	-	-	-	35mm	4.5	5.0	click	1/3	-	-	unlimited	-
Compact															
2.5X 20mm	2.3	22	4.9	20	1	1.36	1in	8	6.5	coin fnct.	1	.410	147	150yds	5.8
2.5X 32mm IER Scout	2.3	22	9.3	32	1.36	1.36	1in	10.1	7.5	coin fnct.	1	.410	118	150yds	4.8
4X 28mm RF	3.6	25.5	4.5	28	1.36	1.36	1in	9.2	7.5	coin fnct.	1	.324	96	60yds.	4.8
2X7 28mm	2.5 / 6.6	41.7 / 16.5	3.8 / 3.0	28	1.361	1.36	1in	9.9	8.16	coin fnct.	1	.283	87	150yds	4.8
3X9 28mm	3.2 / 8.6	34.0 / 13.5	4.0 / 3.0	28	1.555	1.36	1in	11	8.8	coin fnct.	1	.213	64	150yds	5.5
3X9 33mm EFR	3.2 / 8.6	34.0 / 13.5	4.0 / 3.0	33	1.8	1.36	1in	11.3	11.0	coin fnct.	1	.213	64	10m to inf.	5.0
Fixed Power															
4X 33mm	4.0	24	4.0	33	1.557	1.55	1in	10.47	9.3	coin fnct.	1	.275	83	150yds	5.5
6X 36mm	5.9	17.7	4.3	36	1.642	1.55	1in	11.4	10.0	coin fnct.	1	.225	70	150yds	5.9
6X42mm	6.0	17.0	4.5	42	1.937	1.55	1in	12.0	11.3	coin fnct.	1	.213	76	150yds	5.4
6X42mm AO Tact.	6.0	17.0	4.2	42	2.2	1.55	1in	12.18	14.6	targ. click	1/4	-	76	50y to inf.	5.3
12X 40mm AO	11.6	9.1	3.2	40	2.037	1.55	1in	13	13.5	coin fnct.	1/2	.250	51	50y to inf.	5.8
Vari X-II															
1X4 20mm	1.6 / 4.2	75 / 28.5	4.3 / 3.8	20	.998	1.55	1in	9.3	9.0	coin fnct.	1	.413	50	150yds	5.5
2X7 33mm	2.5 / 6.6	42.5 17.8	4.9 / 3.8	33	1.557	1.55	1in	11.0	10.5	coin fnct.	1	.259	73	150yds	5.2
3X9 40mm	3.3 / 8.6	32.3 / 14.0	4.7 / 3.7	40	1.825	1.55	1in	12.3	12	coin fnct.	1	.195	56	150yds	5.6
3X9 50mm	3.3 / 8.6	32.3 / 14.0	4.7 / 3.7	50	2.294	1.55	1in	12.0	13.7	coin fnct.	1	.195	56	150yds	5.0
4X12 40mm AO	4.4 / 11.6	22.8 / 11.0	5.0 / 3.3	40	2.037	1.55	1in	12.3	13.5	coin fnct.	1/2	.195	63	25y to inf.	5.3
6X18 40mm AO	6.7 / 17.1	14.5 / 6.6	4.7 / 3.7	40	2.037	1.55	1in	13.4	13.5	coin fnct.	1/2	.250	63	50y to inf.	6.1

(1) M3 scopes have low profile turrets. Elevation has 1 minute clicks, windage has 1/2 minute clicks.

(2) Maximum internal adjustment given is when the opposite adjustment is centered. (3) Add 1.5 ounces to all weights shown if both target turrets are installed.

Law Enforcement, Power Conversion, Spotting Scope & Rangefinder Specifications

	Actual Magnification	Field of View at 100 yards	Eye Relief	Clear Objective Lens Diameter	Outside Objective Lens Diameter	Outside Ocular Diameter	Tube Diameter	Length	Weight	Standard Adjustment Type	Standard Adjust. Increments	Maximum Internal Adjustment	Focus Capability	Maximum Mount Ring Spacing
	Low/High	Feet	Inches	MM	Inches	IN.		IN.	OZ.		MOA	MOA		IN.
VARIABLE 40MM Adjustable Objective														
14.5X-35X (3)	14.8 / 35.4	8 / 3.4	3.25	40	2.037	1.55	1in	15.1	15.9	coin click	1/4	44	50y to inf.	6.8
18X-40X (3)	18.7 / 40.3	7.6 / 3.3	3.25	40	2.037	1.55	1in	15.2	16.0	coin click	1/4	44	50y to inf.	6.8
20X-50X (3)	20.7 / 50.2	5.6 / 2.55	3.25	40	2.037	1.55	1in	15.2	15.8	coin click	1/4	44	50y to inf.	6.8
VARIABLE 40MM EFR (extended focus range)														
14.5X-35X EFR TARG.	14.8 / 35.4	8 / 3.4	3.25	40	2.043	1.55	1in	15.1	17.9	targ. click	1/4	44	10m to inf.	6.8
18X-40X EFR TARG.	18.7 / 40.3	7.6 / 3.3	3.25	40	2.043	1.55	1in	15.2	18.0	targ. click	1/4	44	10m to inf.	6.8
30X-50X EFR TARG.	29.4 / 50.2	5 / 2.8	2.75	40	2.043	1.55	1in	16.4	18.3	targ. click	1/4	44	10m to inf.	6.8
VARIABLE 50MM														
14.5X-35X (3)	14.8 / 35.4	8 / 3.4	3.25	50	2.578	1.55	1in	15.2	19.4	coin click	1/4	44	50y to inf.	5.5
18X-40X (3)	18.7 / 40.3	7.6 / 3.3	3.25	50	2.578	1.55	1in	15.4	19.5	coin click	1/4	44	50y to inf.	5.5
30X-50X (3)	29.4 / 50.2	5 / 2.8	2.75	50	2.578	1.55	1in	16.4	19.8	coin click	1/4	44	50y to inf.	5.5
14.5X-35X SF LR TARG.	14.8 / 35.4	8 / 3.4	3.25	50	2.294	1.55	30mm	15.1	19.5	targ. click	1/4	90	45y to inf.	6.5
18X-40X SF LR TARG.	18.7 / 40.3	7.6 / 3.3	3.25	50	2.294	1.55	30mm	15.3	19.6	targ. click	1/4	90	45y to inf.	6.5
20X-50X SF LR TARG.	20.7 / 50.2	5.6 / 2.55	3.25	50	2.294	1.55	30mm	15.1	19.5	targ. click	1/4	90	35y to inf.	6.5
MARK 4 POWER CONVERSIONS														
M1-20X 40mm	20.0	5.4	3.5	40	1.962	1.68	30mm	13.4	22.4	targ. click	1/4	140	15y to inf.	6
M1-24X 40mm	23.4	4.3	3.75	40	1.962	1.68	30mm	13.7	22.7	targ. click	1/4	140	15y to inf.	6
M1-32X 40mm	32.0	3.4	3.1	40	1.962	1.68	30mm	14.3	23.6	targ. click	1/4	140	15y to inf.	6
BENCHREST														
BR-D 40X	40.0	2.67	3.4	40	2.190	1.55	1 in	14.14	15.6	targ. click	1/4	60	50ft to inf.	6.8
LAW ENFORCEMENT SCOPES and CONVERSIONS														
6X42mm AO	6.0	17.0	4.2	42	2.2	1.55	1 in	12.0	14.4	targ. click	1/4	76	50y to inf.	5.4
12X 40mm AO	11.6	9.1	3.2	40	2.037	1.55	1 in	12.0	15	targ. click	1/4	51	50y to inf.	5.8
3X9 40mm	3.3 / 8.6	32.3 / 14.0	4.7 / 3.7	40	1.825	1.55	1 in	12.3	13.5	targ. click	1/4	56	150yds	5.6
4X12 40mm AO	4.4 / 11.6	22.8 / 11.0	5.0 / 3.3	40	2.037	1.55	1 in	12.3	15	targ. click	.195	63	25y to inf.	5.3
2.5X8 36mm	2.6 / 7.8	37 / 13.5	4.7 / 3.7	36	1.642	1.55	1 in	11.3	13	targ. click	.243	63	150yds	5.1
3.5X10 40mm	3.3 / 9.7	29.5 / 10.7	4.6 / 3.6	40	1.825	1.55	1 in	12.5	14.2	targ. click	1/4	51	150yds	5.8
3.5X10 40mm SF M3	3.9 / 9.7	29.8 / 11.0	4.0 / 3.5	40	1.825	1.55	30mm	13.5	19.5	click	(1)	51	35y to inf.	6.2
3.5X10 40mm SF M1	3.9 / 9.7	29.8 / 11.0	4.0 / 3.5	40	1.825	1.55	30mm	13.5	19.5	targ. click	1/4	90	35y to inf.	6.2
4.5X14 40mm AO	4.7 / 13.7	20.8 / 7.4	5.0 / 3.7	40	2.037	1.55	1 in	12.4	16.2	targ. click	1/4	63	25y to inf.	5.4
4.5X14 50mm AO	4.7 / 13.7	20.8 / 7.4	5.0 / 3.7	50	2.578	1.55	1 in	12.0	18.2	targ. click	1/4	63	25y to inf.	5.5
4.5X14 50mm SF LR	4..9 / 14.3	19.0 / 6.0	5.0 / 3.7	50	2.294	1.55	30mm	12.1	17.5	targ. click	1/4	90	50y to inf.	5.5
6.5X20 40mm EFR (5)	6.5 / 19.2	14.2 / 5.5	5.3 / 3.6	40	2.043	1.55	1 in	14.2	17.4	targ. click	1/4	48	10m to inf.	6.5
6.5X20 50mm AO (5)	6.5 / 19.2	14.2 / 5.5	5.3 / 3.6	50	2.478	1.55	1 in	14.37	20.4	targ. click	1/4	48	50y to inf.	5.5
6.5X20 50mm SF LR (5)	6.5 / 19.2	14.2 / 5.5	5.3 / 3.6	50	2.294	1.55	30mm	14.3	19.0	targ. click	1/4	90	50y to inf.	6.5
8.5X25 40mm AO (4)	8.5 / 25	10.86 / 4.2	5.3 / 3.6	40	2.037	1.55	1 in	14.37	17.4	targ. click	1/4	48	50y to inf.	6.8
8.5X25 50mm SF LR (4)	8.3 / 24.2	11.4 / 4.3	5.3 / 3.6	50	2.294	1.55	30mm	14.3	19.0	targ. click	1/4	90	50y to inf.	6.5
Mark 4 M3-6X (2) (DISC)	6.0	18	4.5	40	1.962	1.68	30mm	13.1	20.2	click	(1)	75 elev.	15y to inf.	-
Mark 4 M3-10X (2)	10.0	11.1	3.4	40	1.962	1.68	30mm	13.1	20.2	click	(1)	72 elev.	15y to inf.	6.1
Mark 4 M1-10X (2)	10.0	11.1	3.4	40	1.962	1.68	30mm	13.1	21.5	targ. click	1/4	90 elev.	15y to inf.	6.1
Mark 4 M1-16X (2)	15.9	6.6	4.0	40	1.962	1.68	30mm	13.0	22.1	targ. click	1/4	140 elev.	15y to inf.	6
Mark 4 M1-20X (2)	20.0	5.4	3.5	40	1.962	1.68	30mm	13.4	22.4	targ. click	1/4	140 elev.	15y to inf.	6
SPOTTING SCOPES														
25X 50mm Compact (6)	25.0	8.8	.75	50	2.635	1.12	-	9.5	21.2	-	-	-	15y to inf.	-
12X-40X 60mm Vari (6)	12 / 40	17.5 / 5.3	.83	60	2.919	1.55	-	11.5	32	-	-	-	15y to inf.	-

All Law Enforcement scopes and conversions have target style turrets, Mil-dot reticle (Duplex reticle is available), Butler Creek flip-up lens covers and have a dull matte black finish.

(1) M3 scopes have low profile turrets. Elevation has 1 minute clicks, windage has 1/2 minute clicks.

(2) Maximum Windage adjustment 6X...75 moa; M3 10X...52; M1 10X...60 moa; 16X & 20X...45 moa.

(3) Some weights shown are for scopes with coin click adjustments. Add to weights 1.5 oz. if both target turrets are installed.

(4) 8.5X-25X Law Enforcement conversion with 10X mil-dot will have power ring collimated at approx. 10X for 1 mil and 20X for 1/2 mil spacing.

(5) All 6.5X20 scopes will have 10X mil-dots installed. Power ring will be collimated at appropriate setting for 1 mil spacing.

(6) Spotting scopes are available with Modified mil-dot reticles. Mil-dot in variable spotting scope has 1 mil spacing regardless of power setting. Both spotting scopes are black rubber armor protected and are waterproof.

LEUPOLD SCOPE RINGS AND MOUNTS

The LEUPOLD TORX Head Drive System That Features Unstrippable Screws and 25% More Tightening Power.

Leupold is the first mount manufacturer in the world to offer the Torx drive system. Unlike old-fashioned hex head screws, the deep-engaging lobe design won't strip screw heads or distort drivers.

The torx system makes more efficient use of your driving force. So you can tighten screws far more securely, which translates into increased confidence.

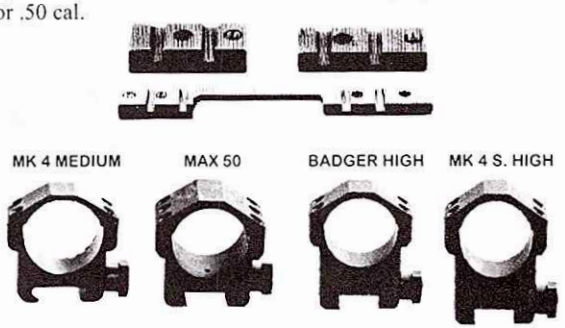
It takes 30 inch pounds of torque to tighten a base screw properly (20 in-lbs. for ring screws). But sadly, hex head screws will strip, or the driving wrench will distort, before that much torque can be achieved.

The Torx head system can withstand up to 57 in-lbs. of torque, which means you'll never push it beyond its limits.Before the Torx system it was recommended that mounting screws be secured by a thread locker, such as Loctite. We now recommend, instead, a light oil be applied to the threads of the Torx screws before assembly, because of the additional tightening power of the Torx system.

Offered in seven mounting options-
1- The STD System
2- The Dual Dovetail System
3- The Ringmount System
4- The QR System
5- The QRW System
6- The Cross-slot Weaver System
7- The Mark 4 System

MARK 4 RINGS & BASES

The Mark 4 System employs a slot and spline design and comes in one and two piece configurations. One piece base fits Remington 700 right hand short action only. Two piece base fits either short or long 700 actions or left hand actions and Win Mod 70 actions. Mark 4 bases accept Mark 4 1 inch or Mark 4 30mm, Badger 30mm rings and QRW 1 inch and 30mm rings A special torque wrench is available to insure the proper 65 in lbs. torque for Mark 4 rings. Mark 4 rings will fit all Mark 4 bases, QRW bases, Weaver style bases or any receivers with the Weaver cross slot design. Super high Mk 4 1 inch and **30mm (New for 1999)** are rings designed for AR-15, SR-25 or other flat top type receivers to insure proper head position. Rings are extra wide and have 4 cap-screws, per ring, instead of two holding the scope in the rings (.625" clamping surface). Badger Max 50 rings have 6 cap-screws per ring and offer a 1 inch clamping surface...ideal for .50 cal.



Mark 4 1-pc. base		50040
Mark 4 2-pc. base		50039
Mark 4 2-pc. base for Win. Model 70		51731
Mk 4 30mm Med. Matte rings	.824 height	49955
Mk 4 30mm Super High rings	**1.40 height**	**NEW 52083**
Mk 4 1" Med. Matte rings	.824 height	49964
Mk 4 1" Super High rings	1.40 height	50222
Badger 30mm High rings	1.125 height	306-09
Badger 30mm Max-50 Med rings	.824 height	306-11

EXTENSION RINGS AND REVERSIBLE BASES

Having trouble getting the proper eye relief or ring spacing? Extension rings and reversible front, reversible rear or long rear bases are designed to get you out of trouble.

STD extension rings are packed with the rotary dovetail ring offset by 5/8 inches and a regular rear windage ring. You can install the extension ring facing either the front or rear of the receiver.

Quick release extension rings include one offset and one regular ring. If you are using a one piece QR base you can offset one ring installed in either the front or rear hole by 5/8 inch toward the front of the receiver. If your two piece base can be reversed you can offset the extension ring facing the rear of the receiver.

Using reversible front, reversible rear or long rear base sets will allow 2-pc STD bases or 2 pc. Dual Dovetail bases to be offset by 1/2 inch. A combination extension ring set and reversible base set will increase the total offset to 1-1/8 inches.

Long Range 1/4 degree STD one piece bases

NEW for 1999, STD one piece bases to fit Remington 700 RH-LA & RH-SA; Winchester Mod 70 RH-LA & RH-SA actions in Matte and Silver finishes. Gives another 15 minutes of adjustment to the scope mounted on this base by sloping the base down in the front.

The whole idea of detachable scope mounts has gained a strong following among hunters and shooters. Because the engineers at Leupold have long since mastered the intricacies of detachable mount technology. And our innovative products have proven to be great values in the field. Because they deliver lots of versatility for the money.

Best of all, every Leupold Detachable Accuracy Mount is guaranteed to return-to-zero.

Our first detachable model—the QR Mount—was introduced in 1993, and has been a big success. And now, we're proud to introduce our second model. The QRW Mount.

Following are just some of the advantages of our Detachable Accuracy systems:

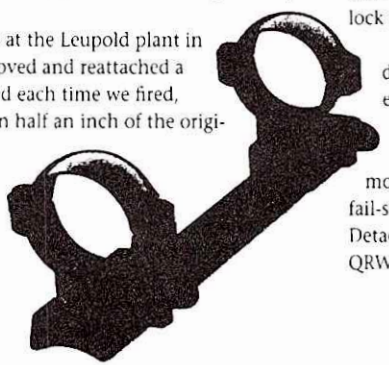
- Have one scope for big game, and another for varmints
- Use a higher magnification scope for load development and precise benchwork, and a lower magnification scope for hunting
- Carry a back-up scope, in case of damage in the field
- Remove your scope during travel
- Remove your scope for separate storage
- The ability to switch quickly to open sights
- Want better access to the loading port during cleaning
- Use a Large Objective scope for low-light situations, and a more compact scope for full daylight
- Remove your scope so your rifle will fit in a scabbard on horseback hunting trips
- Remove the scope for long-term storage

The QR Mount delivers patented accuracy.

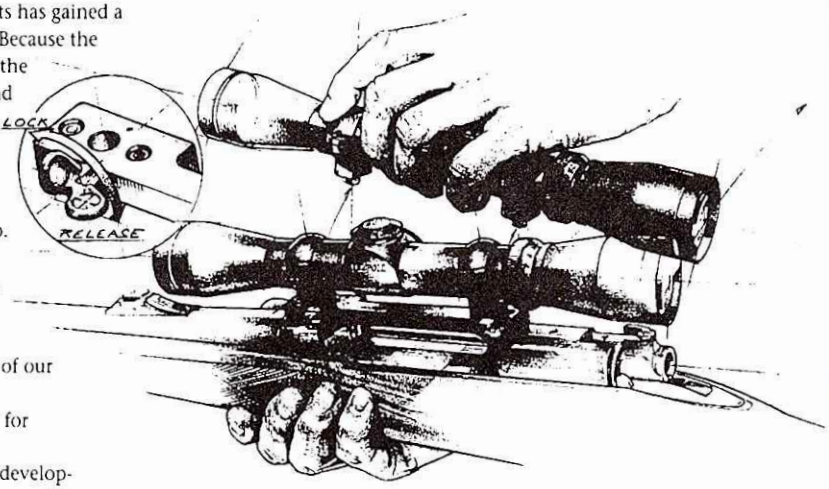
Super-close machining tolerances are at the heart of this patented lever mechanism. By turning the lever forward, an eccentric on the lever shaft engages the base of the ring. This pulls the ring down and forward on the base, locking it solidly into its "zero" position.

In 100-yard firing tests at the Leupold plant in Oregon, we repeatedly removed and reattached a scope in our QR Mount. And each time we fired, the scope returned to within half an inch of the original point-of-impact on the target.

How's that for repeatable accuracy?



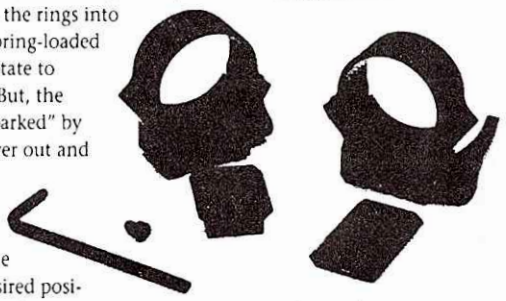
AVAILABLE IN ONE AND TWO-PIECE CONFIGURATIONS



The New QRW means detachable accuracy in a cross-slot format.

Starting this year, Leupold is offering a complete line of steel detachable accuracy mounts that are based on the familiar cross-slot design. (Sometimes referred to as Weaver®-style.)

QRW mounts use an adjustable, double-lever mechanism to securely lock the rings into the base. The spring-loaded levers simply rotate to achieve a lock. But, the levers can be "parked" by pulling each lever out and away from the spring device. This allows you to adjust the levers to the desired position. Then, just release the levers back into the spring, and lock down the rings.



Importantly, QRW rings split below the center line, at downward angles. This allows you to tighten the ring tops evenly without causing the scope to rotate in the rings.

QRW rings are engineered to retrofit any existing cross-slot Weaver-style base, thus converting existing mount bases into a quick detach system. But for the kind of fail-safe, return-to-zero performance that's typical of Leupold Detachable Accuracy mounts, we recommend that you team QRW rings with QRW bases.

Anybody who's hunted much knows that Leupold's tradition of quality extends far beyond riflescopes. Because since 1960, we've been engineering and manufacturing mounting systems in our Oregon plant that are as rugged and reliable as the Leupold scopes they're intended to secure.

Today we offer seven mounting systems, with scores and scores of versions for each system. And no matter which you choose, you can count on it for rock-solid, tack-driving accuracy.

STD™ 1-Piece Base

Leupold STD 1-Piece Bases are true classics. And as such, we have models to fit virtually every rifle in existence. Which makes them arguably the most versatile mount you can find.

The forward part of the base accepts a dovetail ring, locking it solidly into position. Meanwhile, the rear ring is secured by windage adjustment screws.

STD™ 2-Piece Base

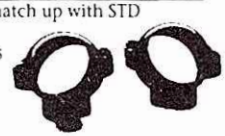
If you're looking for maximum accessibility to the magazine or breech area of your rifle, STD 2-Piece Bases are worth a look. Fluted for a "custom" look, these bases are also ideal if you're after greater flexibility when it comes to mounting options for your bolt action rifle.

Reversible bases are available for each action, which accommodate an impressive variety of scopes and action lengths.

Additionally, STD 2-Piece Bases fit right-hand and left-hand actions.

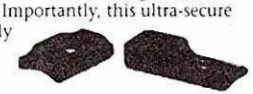
STD Rings

These famous rings are engineered to match up with STD 1-Piece and STD 2-Piece Bases. Although we offer five different ring heights, most hunters and shooters wisely opt for rings that position the scope as low as possible.



Dual Dovetail™ Mounts

Our trademarked Dual Dovetail system provides a classic low-profile mount for scopes on Remington Model 700 and Winchester Model 70-type actions. The bases accept all the rotary Dual Dovetail rings listed in the chart below. Importantly, this ultra-secure system does not rely on windage screws on the rear base. So sighting-in is simple and fast.



STD Handgun Mounts

The recoil typical of the most powerful handguns can truly challenge the integrity of scope mounts. But Leupold STD Handgun Mounts are engineered to "hold their own" on handguns that kick like mules.

Each STD Handgun Mount comes with a 1-piece base and two dovetail rings. Available in models that match up with the most popular handguns, these mounts are worth a serious look. (For complete information, see the mount fit chart.)

Extension Ring Sets

Extension Rings allow you to shorten or lengthen your ring spacing on rifles. A common application is on firearms with long actions, where the normal 4-inch ring spacing is inadequate. But whether you are lengthening or shortening the ring spacing, our extension rings allow you 5/8-inch of adjustment.

Extension Rings that mount on the front of STD bases are available for 1" and 30mm maintubes.

Extension Rings that mount on the front and rear of QR bases are also available for 1" and 30mm main tubes.

Leupold Ringmounts

Of all your scope mounting options, ringmounts represent the most remarkable level of engineering. Because they attach directly to the firearm, and do not require a traditional base.

Use them as a higher-quality alternative to ringmounts sold by firearms manufacturers, and as a no-tap mounting method for .22 rimfire rifles. Our ringmounts have superior integrity, because we machine them from solid stock (as opposed to casting them). Consequently, our tolerances are markedly tighter. And, our product simply looks better.

Ruger M77 integral scope mount

We designed these ringmounts specifically for the purpose of mounting Leupold 50mm objective scopes on Ruger M77 rifles. Consider them as an upgrade for Ruger's integral scope mounting rings. Machined from solid stock for critical tolerances and all-around good looks, Leupold Ringmounts afford you greater mounting flexibility for Ruger M77 rifles.

Sako dovetail ringmounts

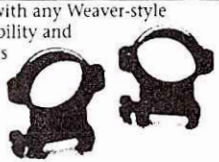
To put the strength of Leupold mount construction on a Sako rifle, consider this alternative. An excellent substitute for standard Sako ringmounts, these ringmounts are offered in a variety of heights. Which means you can mount your scope at its optimal height.

.22 rimfire rifles with dovetail receivers

There's no need to drill and tap your favorite .22 rimfire rifle to mount a scope, because this Leupold ringmount attaches directly to the receiver. The rings lock right into the dovetail receiver to give you a super-solid and accurate mount. It's not uncommon to see these ringmounts used to secure our Compact 4X RF Special scope atop someone's trusty .22.

Rings for cross-slot (Weaver®-style) bases

Engineered specifically to match up with any Weaver-style cross-slot base, these rings deliver the reliability and accuracy you seek. Mount them on firearms such as: AR 15 flat top-style rifles, Remington shotguns with cantilever mounts, and Browning Buckmark Pistols.



Classic Leupold Rings

Note: Height dimensions are given in inches. Measurement is given from the contact point of the ring with the surface of the base to the center of all rings and ringmounts.

STD RINGS

	HEIGHT	P/N
1" Super Low	.550	49895
Matte	.550	49896
1" Low	.650	49897
Matte	.650	49898
Silver	.650	49899
1" Medium	.770	49900
Matte	.770	49901
Silver	.770	49902
1" High	.900	49903
Matte	.900	49904
Silver	.900	49905
1" Super High	1.00	49906
Matte	1.00	49907
1" Low Extension	.650	49908
Matte	.650	49910
1" Medium Extension	.770	49909
Matte	.770	49911
1" High Extension	.900	49912
Matte	.900	49913
30mm Low Matte	.650	51718
Medium Matte	.770	49956
High Matte	.900	49959
Super High Matte	1.00	51033
30mm Medium Silver	**.770**	**52494**
High Silver	**.900**	**52495**
Super High Silver	**1.00**	**52496**

STD 30MM EXTENSION RINGS

30mm Medium Matte	.770	51034
30mm High Matte	.900	51035

DUAL DOVETAIL RINGS

1" Low	.650	49914
Matte	.650	49915
Silver	**.650**	**52313**
1" Medium	.770	49894
Matte	.770	49916
Silver	**.770**	**52323**
1" High	.900	49917
Matte	.900	49918
Silver	**.900**	**51730**
1" Super High Matte	1.00	49919
30mm Low Matte	.650	52242
Medium Matte	.770	49957
High Matte	.900	49958
Super High Matte	1.00	52234

QR RINGS

1" Super Low	.550	49967
Matte	.550	49968
Silver	.550	49969
1" Low	.650	49970
Matte	.650	49971
Silver	.650	49972
1" Medium	.770	49973
Matte	.770	49974
Silver	.770	49975
1" High	.900	49978
Matte	.900	49979
Silver	.900	49980
Super High Matte	1.00	51715
30mm Low Matte	.650	51717
Medium Matte	.770	49931
High Matte	.900	49933
Super High Matte	1.00	51716
1" Medium Extension	.770	49983
Matte	.770	49976
1" High Extension	.900	49984
Matte	.900	49981

QR 30MM EXTENSION RINGS

30mm Med. Matte	.770	49939
30mm High Matte	.900	49941

QRW RINGS

1" Low	.730	49852
Matte	.730	49853
Silver	.730	49854
1" Medium	.850	49855
Matte	.850	49856
Silver	.850	49867
1" High	.980	49857
Matte	.980	49858
Silver	.980	49859
30mm Low Matte	.730	49861
Medium Matte	.850	49863
High Matte	.980	49865

RUGER #.1 & 77/22 RINGMOUNTS

1" Low	.734	49950
1" High	1.01	50216
Matte	1.01	50217
Silver	1.01	50218
30mm Med. Matte	.897	51038
High Matte	1.027	51039
Super High Matte	1.127	51043

RUGER M77 RINGMOUNTS

1" Low	.734	43977
1" High	1.01	49951
Matte	1.01	49952
Silver	1.01	49953
1" Super High	1.11	49954
Matte	1.11	49944
Silver	1.11	50166
30mm Med. Matte	.897	51041
High Matte	1.027	51042
Super High Matte	1.110	51043

SAKO-STYLE RINGMOUNTS

1" Low	.734	49946
1" Medium	.859	49945
Silver	.859	51719
1" High	1.056	49948
Silver	1.056	51720
1" Super High	1.156	49942
Matte	1.156	49943
Silver	1.156	51721
30mm Med. Matte	.859	51036
High Matte	1.057	51037
Super High Matte	1.157	51722

RIMFIRE RINGMOUNTS

1" Low	.721	49949
1" Medium	.846	49947

WEAVER STYLE RINGS

1" Medium	.720	49965
1" High	.850	49966

GUNMAKER BASES

STD , Windage 1 each	50033
STD or DD, 1 each	50034
QR 2 each	50065

Gunmaker bases are designed for the gun makers who prefer a totally customized approach. They provide the freedom to customize bases to satisfy the requirements of specific actions.

There is no fluting or pre-drilled mounting holes. This gives total flexibility to custom drill holes, cut to length, cut a specific radius or cut custom flutes.

All gunmaker finishes are gloss black.

LEUPOLD MOUNT FIT INFORMATION 1999

FIREARM	STD 1 PIECE BASE			STD 2 PIECE BASE				DUAL DOVETAIL 2 PIECE BASE				QR 1 PIECE BASE			QR 2 PIECE BASE			QRW 2 PIECE BASE		
	Gloss	Matte	Silver		Gloss	Matte	Silver		Gloss	Matte	Silver	Gloss	Matte	Silver	Gloss	Matte	Silver	Gloss	Matte	Silver
Browning A-Bolt RH-Short Action Includes Micro Medallion	50009	50008		 RVF LR	50036 50027 50029	 50030	 50031	RVF		50159	51729					50057	50058	49846	49847	49848
Browning A-Bolt RH-Long Action	50011	50010		 RVF LR	50036 50027 50029	 50030	 50031	RVF		50159	51729					50057	50058	49846	49847	49848
Browning Auto (BAR)	49985											51249				51223				
Browning FN Action	49988			 RVF	50025 50027	50026 46294									50055	50056		49843	49844	
Browning BLR (Pre 1996)	49986											51250								
Browning 1885 (Highwall only)					50012															
Browning Semi-Auto .22 RF Rifle	50014																			
Browning Model 52					50038															
BSA Monarch RH-Short Action	50005	50006	50161	 RVF	50015 50017	50016 50018	 50019	 RVF	50041 50043	50042 50044	51727				50049	50050	50059	49840	49841	49842
BSA Monarch RH-Long Action	50003	50004		 RVF	50015 50017	50016 50018	 50019	 RVF	50041 50043	50042 50044	51727	50047	50048		50049	50050	50059	49840	49841	49842
Dakota Rifle																50062			49836	
Harrington & Richardson 300/301/330/370 PRE 1973	49988			 RVF	50025 50027	50026 46294									50055	50056		49843	49844	
Husqvarna Crown Garde and Carl Gustaf	49989																			
Interarms Howa 1500	50003	50004		 RVF	50015 50017	50016 50018	 50019	 RVF	50041 50043	50042 50044	51727	50047	50048		50049	50050	50059	49840	49841	49842
JC Higgins (after 1955)	49989																			
JC Higgins (prior to 1955)	49988			 RVF	50025 50027	50026 46294									50055	50056		49843	49844	
Marlin 7 Marlin 7 Long Range Base	50000	50001 51738	 51739	RVR	50020	50021	50024		50045	50046	51728				50053	50054		49837	49838	49839
Marlin 336, 336T, 35, 36, 36A, 375, 444, 1895, 9, 45, 30AS, 922M	49987																			
Marlin 455	49988			 RVF	50025 50027	50026 46294									50055	50056		49843	49844	
Mauser FN	49988			 RVF	50025 50027	50026 46294									50055	50056		49843	49844	
Mauser Mark X (Interarms)	49988			 RVF	50025 50027	50026 46294									50055	50056		49843	49844	
Mauser 95/98	49990					52370														
Mauser 96, Swedish (small ring)					51263															
Mossberg 1500/1700 (Right Hand-Short Action)	50005 49991	50006 (Spec) 50083	50161	 RVF	50015 50017	50016 50018	 50019	 RVF	50041 50043	50042 50044	51727				50049	50050	50059	49840	49841	49842
	(DUAL DOVETAIL 1 PIECE BASE WITH MEDIUM RINGS)																			

CONTINUED ON NEXT PAGE

FIREARM	STD 1 PIECE BASE			STD 2 PIECE BASE			DUAL DOVETAIL 2 PIECE BASE			QR 1 PIECE BASE			QR 2 PIECE BASE			QRW 2 PIECE BASE		
	Gloss	Matte	Silver	Gloss	Matte	Silver	Gloss	Matte	Silver	Gloss	Matte	Silver	Gloss	Matte	Silver	Gloss	Matte	Silver
Parker Hale 1000/1100/1200	49988			50025	50026								50055	50056		49843	49844	
				RVF 50027	46294													
Rem. 7, 40X, 600/660, 700, XP-100 RH-SA Long Range Base		**51734**	**51735**															
Rem. 7, 40X, 600/660, 700 RH-LA Long Range Base		**51732**	**51733**															
Remington Model 4, 6, 7400 & 7600	49993									50067								
Rem. Mod 7 serial number under 762,800 on stainless or under 773,800 on blue finish	50005	50006	50161															
		50083 (DUAL DOVETAIL 1 PIECE BASE WITH MEDIUM RINGS)																
Rem. Mod 7 serial number over 762,800 on stainless or over 773,800 on blue finish				51256		51257					51247	51248						
Remington 40X RH-Short Action	50005	50006	50161	50015	50016		50041	50042	51727				50049	50050	50059	49840	49841	49842
	49991	(Spec)		RVF 50017	50018	50019	RVF 50043	50044										
	50083 (DUAL DOVETAIL 1 PIECE BASE WITH MEDIUM RINGS)																	
Remington 40X RH-Long Action	50003	50004		50015	50016		50041	50042	51727	50047	50048		50049	50050	50059	49840	49841	49842
				RVF 50017	50018	50019	RVF 50043	50044										
Remington 541				50028									52240	52239		49866		
Rem. 600/660 RH-Short Action	50005	50006	50161	50015	50016		50041	50042	51727				50049	50050	50059	49840	49841	49842
	49991	(Spec)		RVF 50017	50018	50019	RVF 50043	50044										
	50083 (DUAL DOVETAIL 1 PIECE BASE WITH MEDIUM RINGS)																	
Rem. 700/721/725 RH-Long Action	50003	50004		50015	50016		50041	50042	51727	50047	50048		50049	50050	50059	49840	49841	49842
				RVF 50017	50018	50019	RVF 50043	50044										
Rem. 700/721/725 LH-Long Action	50007			50015	50016		50041	50042	51727				50049	50050	50059	49840	49841	49842
				RVF 50017	50018	50019	RVF 50043	50044										
Rem. 700/721/725 RH-Short Action	50005	50006	50161	50015	50016		50041	50042	51727		51247	51248	50049	50050	50059	49840	49841	49842
(Includes Mod. 700 Muzzle Loader)	49991	(Spec)		RVF 50017	50018	50019	RVF 50043	50044										
	50083 (DUAL DOVETAIL 1 PIECE BASE WITH MEDIUM RINGS)																	
Rem. 700/721/725 LH-Short Action	50015	50016		50015	50016		50041	50042	51727				50049	50050	50059	49840	49841	49842
				RVF 50017	50018	50019	RVF 50043	50044										
Remington 740/742/760	49992									51246								
Remington XP 100	50005	50006	50161	50015	50016		50041	50042	51727				50049	50050	50059	49840	49841	49842
	49991	(Spec)		RVF 50017	50018	50019	RVF 50043	50044										
	50083 (DUAL DOVETAIL 1 PIECE BASE WITH MEDIUM RINGS)																	
Rimfire Rifles	SEE RINGMOUNT PART NUMBERS. WILL NOT FIT SAKO MOD. 78, BROWNING T BOLT, KIMBER MOD 82, WBY XXII OR ANSCHUTZ .22																	
Ruger NO. 1 & 72/22	SEE RINGMOUNT PART NUMBERS.																	
Ruger 10/22 Carbine (rimfire)	49994	51723	51724								51725	51726						
Ruger M77 (round receiver, right hand, long action)	50003	50004		50015	50016		50041	50042		50047	50048		50049	50050	50059	49840	49841	49842
				RVF 50017	50018	50019	RVF 50043	50044										
Ruger M/77 (dovetail receiver)																		
Ruger Mini-14	50002 (DRILLING AND TAPPING REQUIRED)																	
Sako (round receiver)	49988			50025	50026								50055	50056		49843	49844	
				RVF 50027	46294													
Sako (dovetail receiver)	SEE RINGMOUNT PART NUMBERS.																	

Savage 110 through 116 RH-LA	49996		51011														50066			52314			49833		49834
Savage 110 through 116 LH-LA	50219		50220																	52314			49833		49834
Savage 10 through 16 RH-SA	52316	52317	52318																	52314			49833		49834
Savage 10 through 16 LH-SA	52326		52327																	52314			49833		49834
Savage 99 Lever Action	49995																								
Smith & Wesson (Early Mod. Rifle)	49989																								
Smith & Wesson 1500, 1600,1700 (right hand, long action)	50003	50004			50015	50016			50041	50042	51727						50047	50048		50049	50050	50059	49840	49841	49842
				RVF	50017	50018	50019	RVF	50043	50044															
Springfield 1903A3 (1)	49997																								
Styer SBS	50011	50010			50036																50057	50058	49846	49847	49848
				LR	50029	50030	50031	RVF		50159															
Thompson/Center Contender	50073	(ONE PIECE DUAL DOVETAIL BASE INCLUDES MEDIUM RINGS.)															50068								
Thompson/Center Single Shot Rifle	49999																								
Thompson/Center Hawken Rifle	49998																								
Weatherby FN	49988				50025	50026														50055	50056		49843	49844	
				RVF	50027	46294																			
Weatherby Vanguard	50003	50004			50015	50016			50041	50042							50047	50048		50049	50050	50059	49840	49841	49842
				RVF	50017	50018	50019	RVF	50043	50044															
Weatherby Mark V (Right hand or left hand long action. Hole spacing is the same as the Rem. 700 but the front base is 0.020" lower. Includes .378 Magnum and .460 Winchester Magnum.																									
					51700	51701			51705	51706										51708	51709	51710			
				RVF	51702	51703	51704	RVF		51707															
Weatherby Mark V Lightweight					52319		52320													51711	51712	51713			
Western Field M/740	49987																								
Winchester Model 52					50038																				
Winchester Model 70, 670, 770, 70A (2 Piece fit long OR short action)	50000	50001		RVR	50020	50021			50045	50046	51728						47186	47187		50053	50054	50060	49837	49838	49839
				RVF/F	50022	50023	50024																		
(1 piece fit long action ONLY) (Short & long actions all have rear receiver hole spacing of 7/8")	THE ABOVE PART NUMBERS ARE FOR NON-EXPRESS, POST WAR MODELS WITH SERIAL NUMBERS HIGHER THAN 66,360																								
Winchester Model 70, 670, 770, 70A - RH-LA Long Range Base		51738	51739																						
Winchester Model 70, 670, 770, 70A - RH-SA Long Range Base		51736	51737																						
Winchester 70 Express Pre-64 (.435" rear mount hole spacing)																	50064				50062			49836	
	THE ABOVE PART NUMBERS ARE FOR LONG ACTION EXPRESS MODELS IN .458 WIN., .416 REM., .375H&H, .300 WBY & .300 H&H MAGNUMS																								
Winchester 70 Express Post-64 (.330" rear mount hole spacing)				RVF	50377	50378	50379										50064				50063			49835	
				LR		50376																			
	THE ABOVE PART NUMBERS ARE FOR LONG ACTION EXPRESS MODELS IN .458 WIN., .416 REM., .375H&H, .300 WBY & .300 H&H MAGNUMS																								
Winchester Model 94 AE					50035																				

LEGEND-- RVF=REVERSE FRONT BASE, RVR=REVERSE REAR BASE. RVF/R=REVERSE FRONT BASE & REVERSE REAR BASE.
SPEC=SPECIAL LONG 1 PIECE BASE TO FIT SHORT ACTION. LR=LONG REAR BASE

NOTE-- ALL TWO PIECE BASES FIT BOTH LONG & SHORT ACTIONS AND WILL FIT EITHER RIGHT OR LEFT HAND ACTIONS.

BEGINNING IN 1996 LEUPOLD CHANGED ALL RING, BASE AND RINGMOUNT PART NUMBERS TO REFLECT NEW BLISTER PACKAGING AND TORX SCREWS. ACTUAL PARTS HAVE NOT CHANGED...ONLY PACKAGING AND SCREWS. YOU MAY ORDER USING OLD OR NEW PART NUMBER. DEPENDING ON OUR INVENTORY IF OLD PART NUMBER IS USED TO FILL YOUR ORDER WE WILL INCLUDE A TORX SCREW KIT THAT WILL REPLACE HEX HEAD SCREWS.

SHIPPING, HANDLING RATE CHART

	UPS - U.S. ADDRESSES						U.S. MAIL			
					AK & HI		DOMESTIC		FOREIGN	
DOLLAR AMOUNT	GROUND	3-DAY	2-DAY	NEXT DAY	2-DAY	NEXT DAY	PRIORITY	EXPRESS	CANADA	OTHER
SCOPES										
0 - 199	9.00	13.00	16.00	26.00	19.00	31.00	14.00	22.00	28.00	38.00
200 - 299	10.00	14.00	17.00	27.00	20.00	32.00	15.00	23.00	29.00	39.00
300 - 399	11.00	15.00	18.00	28.00	21.00	33.00	16.00	24.00	30.00	40.00
400 - 499	12.00	16.00	19.00	29.00	22.00	34.00	17.00	25.00	31.00	41.00
500 - 599	13.00	17.00	20.00	30.00	23.00	35.00	18.00	26.00	32.00	42.00
600 - 699	15.00	18.00	21.00	31.00	24.00	36.00	19.00	27.00	33.00	43.00
700 - 799	16.00	19.00	22.00	33.00	25.00	37.00	20.00	28.00	34.00	44.00
800 - 899	17.00	20.00	23.00	36.00	26.00	38.00	21.00	29.00	35.00	45.00
900 - 999	19.00	22.00	24.00	37.00	27.00	39.00	22.00	31.00	37.00	47.00
1000 - 1099	21.00	23.00	25.00	38.00	28.00	40.00	24.00	32.00	38.00	48.00
1100 - 1199	20.00	24.00	26.00	40.00	30.00	42.00	25.00	33.00	39.00	49.00
1200 - 1299	21.00	25.00	27.00	41.00	31.00	43.00	26.00	34.00	40.00	50.00
1300 - 1399	22.00	29.00	31.00	45.00	35.00	47.00	27.00	35.00	41.00	51.00
1400 - 1499	26.00	30.00	32.00	46.00	36.00	48.00	28.00	36.00	42.00	52.00
1500 - 1599	27.00	31.00	33.00	47.00	37.00	49.00	29.00	37.00	43.00	53.00
1600 - 1699	28.00	33.00	35.00	49.00	39.00	51.00	30.00	38.00	44.00	54.00
1700 - 1799	29.00	34.00	39.00	53.00	43.00	55.00	31.00	39.00	45.00	55.00
1800 - 1899	30.00	35.00	40.00	54.00	44.00	56.00	32.00	40.00	46.00	56.00
1900 - 1999	31.00	36.00	41.00	55.00	45.00	57.00	33.00	41.00	47.00	57.00
2000 + (Call for rates)										
ACCESSORIES										
0-199	7.00	9.00	12.00	23.00	15.00	24.00	6.00	20.00	26.00	36.00

- Use this rate chart to determine shipping, handling and insurance charges on scopes & accessories. All rates subject to change without notice. Add $2 each for each additional scope (USA only) sent to us for reticle work or target turrets.
- Scope rates include accessories, rings and bases included with any scopes.
- Accessory rates are for any accessory, rings or bases only.
- Add $5.00 for COD shipments. Cashiers check or money order only-NO CASH USA only.
- Next Day Air Saver rates are for guaranteed 3:00 PM next day delivery. For guaranteed 10:30 AM next day delivery add $5 to rates.
- UPS Saturday delivery is available for US addresses. Add $15 to chart rates. Some addresses do not have Saturday Delivery. Please call.
- Rural Alaska UPS Air Rates are higher. Please call.
- ALL parcels with a value more than $100 will have an "Adult Signature Required Sticker" so the parcel will not be left at your door step. If you are not home during the day please give a ship-to address. It is your option if you want the signature required sticker attached to your order.
- APO, FPO and P.O. Box addresses use Priority rates.
- Excess shipping may be charged to dimensionally oversized packages sent by any method except UPS ground.
- Scopes sent to us from outside the United States should have a note beside the shipping label stating "Product of USA. Being returned for modification and return to "your country". Without this note customs duty may be charged and we will refuse the parcel.
- Foreign countries scope shipments by Express Mail only. Accessories may be shipped via AO Air mail small packet, call for rates.
- International Express Mail rates subject to change mid year 1999.

PREMIER RETICLES, LTD. — *ORDER FORM*

920 Breckinridge Lane - Winchester, VA 22601 - (540) 722-0601 - Fax (540) 722-3522 - E-mail reticles@shentel.net

Daytime Phone Number ( )_____ E-mail _____

Name and address

First Name | Initial | Last

Address | Apt.

City | State | Zip

Ship to address (if you cannot be home for "Signature Req'd")

First Name | Initial | Last

C/O

Address

City | State | Zip

Page	QTY	P/N	Description	Price Ea.	Total

Method of Payment

☐ Check or money order enclosed. Personal Checks over $150 will be held 2-3 weeks. You may secure with a credit card number.

☐ COD - **CASHIERS CHECK OR MONEY ORDER (no cash)**

☐ Visa

☐ MasterCard

☐ Discover

Card Number exp.

Signature

Merchandise Total	
Shipments to VA Addresses Add 4.5% sales tax	
Shipping and Handling Page 36 - advise method	
Add $2 each for each additional scope sent to us, for return shipping. **USA only**	
COD Fee $5.00 **(no cash)**	
Order Total	